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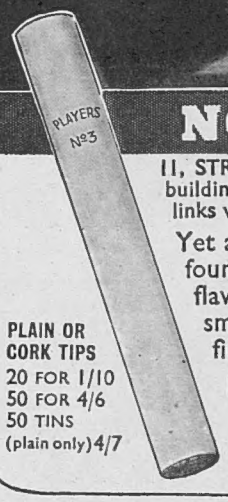

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Volume CLXIV No. 2147 The SPHERE, London, March 15, 1941

THE SPHERE

With which is incorporated "THE GRAPHIC"

The Empire's Illustrated Weekly

London, March 15, 1941

HOW THE CAPTIVES FROM THE LOFOTEN ISLANDS WERE BROUGHT OFF: German Merchant Seamen, Air Staff and Norwegian "Quislings"—Blindfolded and Following their Leader—being Transferred for the Journey to Britain

During the raid on the Lofoten Islands, off Norway, on March 4, not the least considerable of the spoils captured by the Royal Navy was the mixed bag of enemy seamen and soldiers and Norwegian "Quislings." Of the Germans, some 215 prisoners were brought off to England, where, of course, they will be treated as prisoners of war: these men are soldiers of the Occupation Forces, merchant seamen, and seventeen of the German *Luftwaffe* personnel. The Germans were discovered to be building a naval air station on the Islands, and the air staff were assisting in the work. But added to the German prisoners were also ten "Quislings," Norwegians who were betraying their own country. The question of how these men should be treated is now under consideration by the Norwegian Government in London. In order to make sure that nothing of importance should be discovered by our captives as they were taken aboard, all the men were blindfolded, in the manner illustrated above, as they went on to the British vessels which were to convey them to Britain. The full story of this great Naval Epic is told on the following pages

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A WAR NEWSLETTER —No. 80

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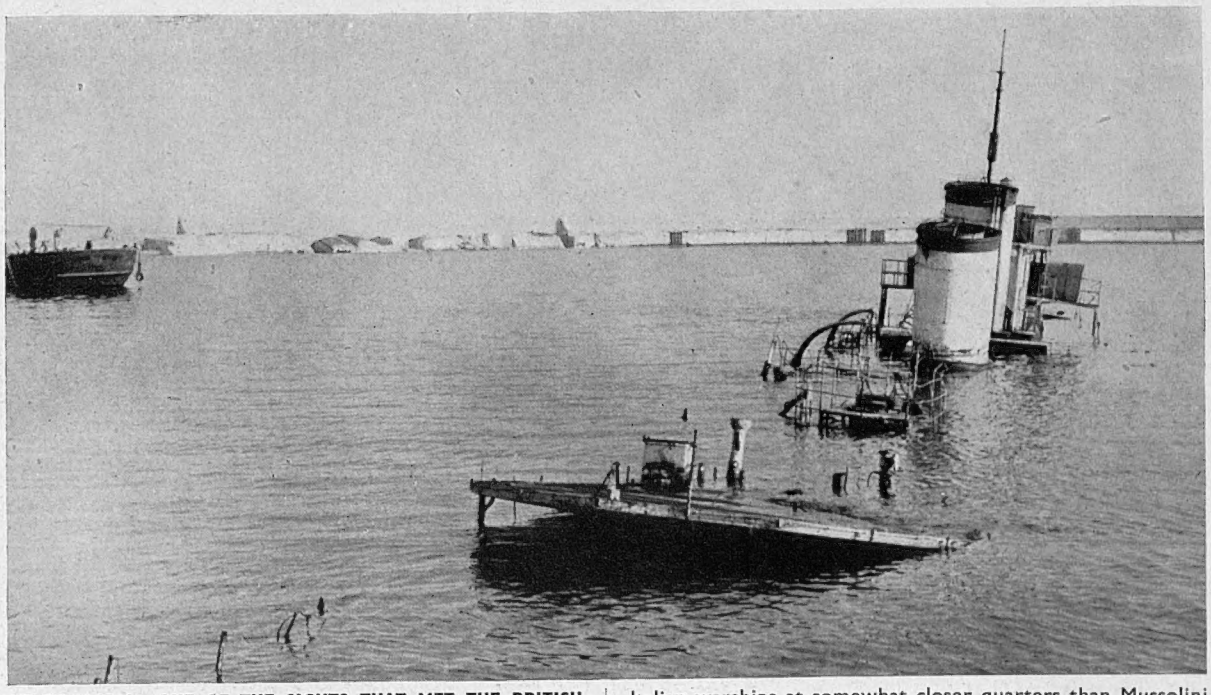
Lofoten Islands. — Drake and Hawkins might have drafted that joint report on the success of the cutting-out expedition to the Lofoten Islands, and Froude alone could have done it complete justice as a narrative. The affair comes straight out of the pages of *English Seamen of the XVIth Century*. The men who did the business so perfectly, so efficiently, so neatly, so silently, were in the Drake tradition and of the blood and bone of the Elizabethan sailors and of the Norsemen of older days. Decadent democracy? Signs of it in Britain and Norway are for the Nazis sadly to seek. It must have been a perfect operation, prepared, timed, executed with 100 per cent. efficiency. Without a ship scratched, or a man scratched, the Allied raiders destroyed ten Nazi vessels, or nearly 20,000 tons of invaluable shipping, including a 10,000-ton supply ship or floating oil-refinery. Parties visited the four main oil ports on the islands, and gutted the oil factories and storage plants, and destroyed much petrol besides. They wrecked a new air-field, and took prisoners the air personnel, with 200 other Germans and Quislings, and brought to Britain 300 patriots to join their free countrymen in the fight against slavery. After supplying the local inhabitants with food and comforts, they sailed home with their prisoners and their glory, leaving to Goebbels the difficult task of explaining away the affair, as seemed best to his ingenious mind, to the German and Norwegian nations jointly and severally. A grand episode in the tradition of Cadiz and Zeebrugge. What *heartening* news in this war of words and nerves!

Bulgaria—Her Neighbours' Reactions. — It is pleasant to find ourselves in agreement with the Soviet Union. "The Soviet Union cannot share the opinion of the Bulgarian Government that the presence of German troops in Bulgaria will facilitate the preservation of peace." That is a view with which no one in Britain (or outside Bedlam) would find himself at variance. It follows logically that the Nazis should take exception to it, and even risk saying so bluntly. Bulgaria has signed along the dotted line (like Rumania, Hungary, Italy, Japan, and so on), and justified her signature with a specious justification which did not deceive one living soul in so-called civilisation. The Soviet Union was not invited (at this stage) to sign its name along the dotted line. Its dignified, clear and inexorably logical answer to Bulgaria is not in itself of much weight. Germany is not much bound by (or to) signatures along dotted lines, and is quite as happy to accept passive acceptance of her will as documentary proof of agreement with her will. It was all one to the German plan whether Bulgaria signed or no, and the German plan will not be modified by the Soviet's snub to Bulgaria. No one knows better than Germany, which loves to play with words and signatures, that words mean nothing and actions everything. At the moment Germany believes that Russia is still playing for time and hopes for at least three months more as an "observer," while her most hated rivals (in her view), Britain and Germany, batter each other to death and bleed each other white in the effort. That is jam for Russia—and jam, too, for Nazi policy in the Balkans at present. So that Russia remains a spectator while the new aggression lasts, let the cause of inaction be what it may. "Let them hate, provided they fear." The Soviet reply does no more than keep alive at Berlin the shadowy, unsubstantial fear of an unprotected flank along the Russian borders.



AT BENGHAZI: ONE OF THE SIGHTS THAT MET THE BRITISH FORCES AFTER THE CAPTURE OF THE CYRENAICAN CAPITAL: Despite the difficulties of getting good photographs of the Italian Navy in wartime—their speed is so considerable!—it is sometimes possible to inspect Italian warships at somewhat closer quarters than Mussolini intended. This picture, for instance, taken in the fine harbour at Benghazi shows a destroyer which will no longer operate in Mediterranean, or any other, waters: it was sunk by bombers of the R.A.F.

Russia, Turkey, Yugoslavia.—Less equivocal, less vague and unsubstantial, albeit still far from clear, are the reactions of some of Bulgaria's other neighbours. Already there are massed on the very borders of Greece and Turkey a German army ready equipped to strike. It may have struck long before these lines see print. To that threat, Greece has declared with apparent authority that for them there is no outlet, apart from victory, save death. And Turkey has declared in not much less authoritative words that she will resist by force a Nazi thrust towards Salonika. Both countries, it is clear, rely, and can rely, on British co-operation by all arms and all available means. The war staffs of all three countries have pooled their resources and concerted their plans within the last fortnight. Rumania and Bulgaria have brought their miseries and shame on their own heads, and Yugoslavia is granted an eleventh-hour for reflection and history reading. That hour, too, may have passed before these lines are in print, and we cannot forecast how it will be, or has been, spent. Hitler has found no reason to change his "sickening technique." And now Yugoslavia and Turkey also (a very much bigger pike) have the bait dangled before their noses. A message of friendship and peaceful assurance to each. Was it possible that Prince Paul (who knows his Britain) and that Turkey (the heirs of Kemal Ataturk) could see the first fruits of Hitler's new order everywhere in Europe and seeing, believe in Hitler's sweet assurances? Could Mr. Eden's visit to Angora survive in memory but three days? It is not odd if we refused to credit that possibility, even while the Oracle of Moscow spoke as ever in the Delphic tradition.

Always Partridge. — How will the war end? It is a great subject for theorists in strategy, economy and what-not. I am not even a "what-not" theorist. I am a man-in-the-street or in the fog, stumbling along without light in the black-out. But it is being borne in on me rapidly, by contact with my neighbours, that there may be a psychological solution which will prove stronger and more rapid than all the efforts and expedients of blockades and of armies with banners and bombs. It may be that a day will come within months, when the whole stricken world within the epicentre of this typhoon will cry out with one voice that their minds and ears can suffer no longer the din and agony and madness and boredom of non-stop war news, war talks and war echoes. We must remember that there exists in history no parallel to a total war such as this. The Napoleonic Wars lasted far longer than those of the twentieth century—to go back no further than 150 years. But you have only to read Jane Austen to realise that war and war talk entered hardly at all into the lives and conversations of ordinary folk. Their lives went on exactly as usual in peacetime and their talk was of sheep and assembly balls, of Bath and dress fashions, of prize fights, and books and local gossip. You need only read Repington's diaries of the late war to realise that even at its zenith of intensity that war left a very wide range of intellectual interests not directly connected with the prosecution of war. All that is changed for the first time in history and with a totality of which the significance is only just beginning to strike forcibly on the minds of men. That too-revealing diary of Colonel Repington proved to us that war news and sensation could have a stimulating and almost lip-smacking effect on people who were, physically, more or less immune from danger of death in action. War could give a "kick" to the lives of insensate people who were not in the "front line." We need not repeat the truism that all to-day are in the front line. It is not entirely true, but it is largely true. It is true, too, that in the first year of this war, comparative immunity for the bulk of the citizens gave the same "kick" to war news. It is still true that war topics and war news are hard to resist. Our interest in them is absorbing, profound, vital and anxious.

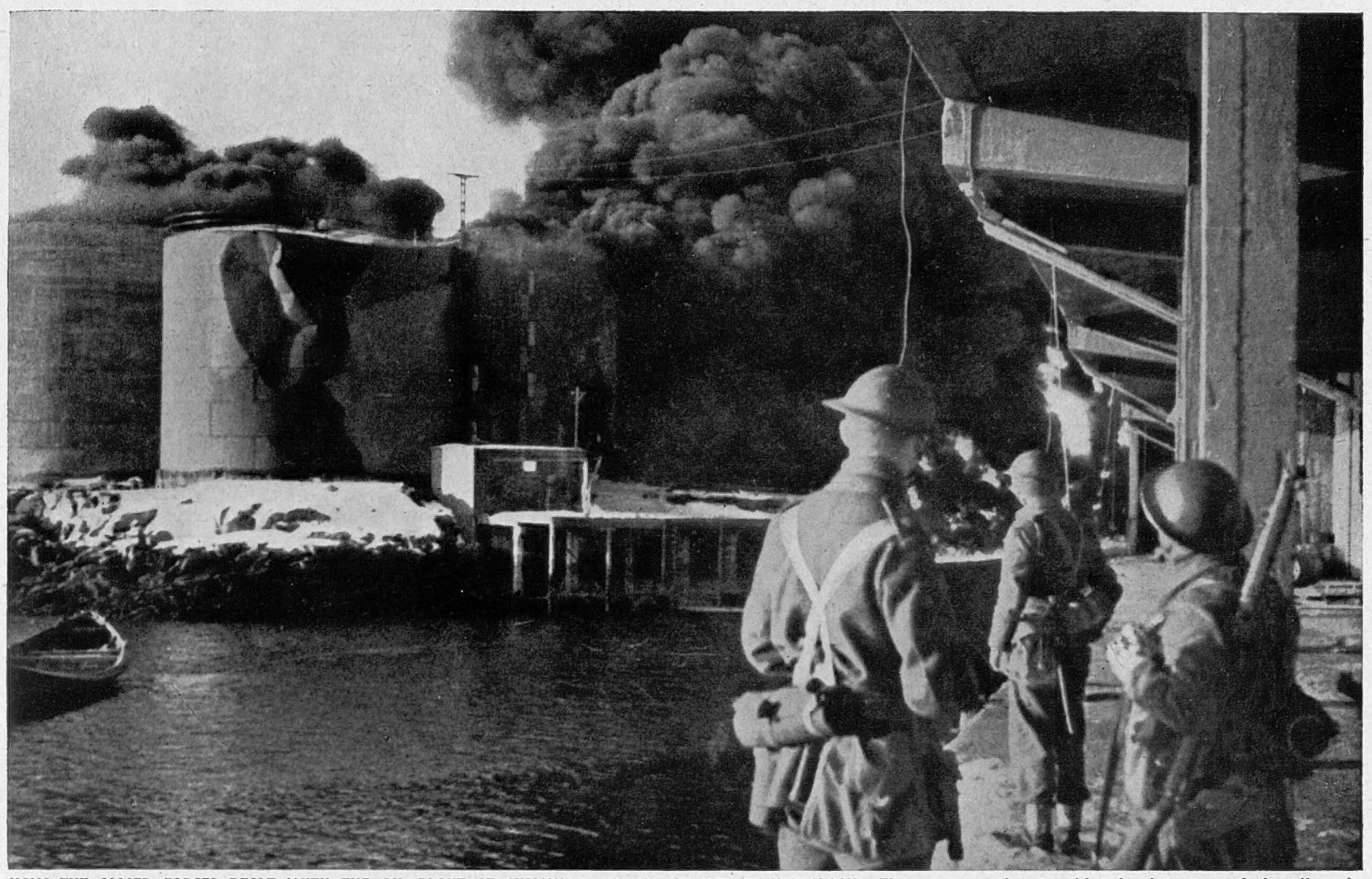
The All-Pervading Onion. —But we are only just learning what comes from allowing these matters to absorb our minds to the exclusion of *all* else. Except for the much truncated Law Reports, is there any feature of the day's news and other items which does not deal directly with war, or more or less directly? Even those papers which continue to treat of literature and art find the onion in their dish. Of new publications, 50 per cent., and nearly all the best-sellers, are war books. The theatre and the studio are war-conditioned and war-restricted. The countryside, country life, industry, finance are presented to us in war dress, for their war problems direct every one of their activities and expedients. War news is like a street accident. We don't want to turn our eyes on the horrid sight, but most of us cannot choose but do it. We turn on the wireless at 8, at 1, at 6, and at 9. We hear the same news in much the same words four times a day, and when we turn to read, it is the same . . . *toujours perdrix*. There is no escape except for the strongest characters, and even those still doubt if their powers of resistance are worthily exerted. Ought they to escape even temporarily from the atmosphere of total and non-stop war? It is not for me to say. This I do know: that it is suddenly being borne in on scores of men of my sort that our minds are filled almost to saturation point with total war. A proof of this truth is our gratitude to those journals which still give us an occasional escape from war, with an article or paragraph not even remotely connected with the subject. A reaction, a heart-cry for sanity and a measure of constructive thought, is near the surface. If it broke, would it be good for our cause? Not unless the cry and the reaction were universal in the stricken area and exactly timed. The German race has fed on perpetual partridge far longer than ours.

How the End Might Come. —It is not impossible that the same mental reaction may burst forth at the same time from all the contending races. If it does so, before the pressure of armed force and economic warfare achieve—if achieve they can—an end to stalemate, that general reaction of millions of war-strained minds of all races would assuredly burst through the weakest section in the barrier-wall which keeps humanity from sanity and peace. Whether justly or unjustly, whether for the immediate advantage of one side or another, the individuals whose dominance prevents a return to peace must go, must be sacrificed or punished (whichever way you look at it), must be expelled for the good, for the salvation, for the sanity, of the peoples of Europe and Civilisation. However much we hate each other, however high the barriers which keep truth, communion and understanding from filtering from race to race, all who think at all, know that if twenty men now alive were dead, there would be no war. If a handful of men now alive had been dead in 1939, there would have been no war. It is at least common knowledge (without prejudice to opinion on rights and wrongs) that one individual is driving down the valley of death and misery and destruction every flock of 50,000,000 sheep comprised in the tragic sacrifice. And *that* is the measure of our civilisation's progress from the Dark Ages. How will the war *end*? Of all the theories put forth by military strategists, economic experts and arm-chair prophets, none strikes me to-day as much more probable, or much less remote, than this theory of world-wide indigestion, this coming saturation-point of the human mind. War may end by proving itself an utterly intolerable BORE.

THE OLD STAGER

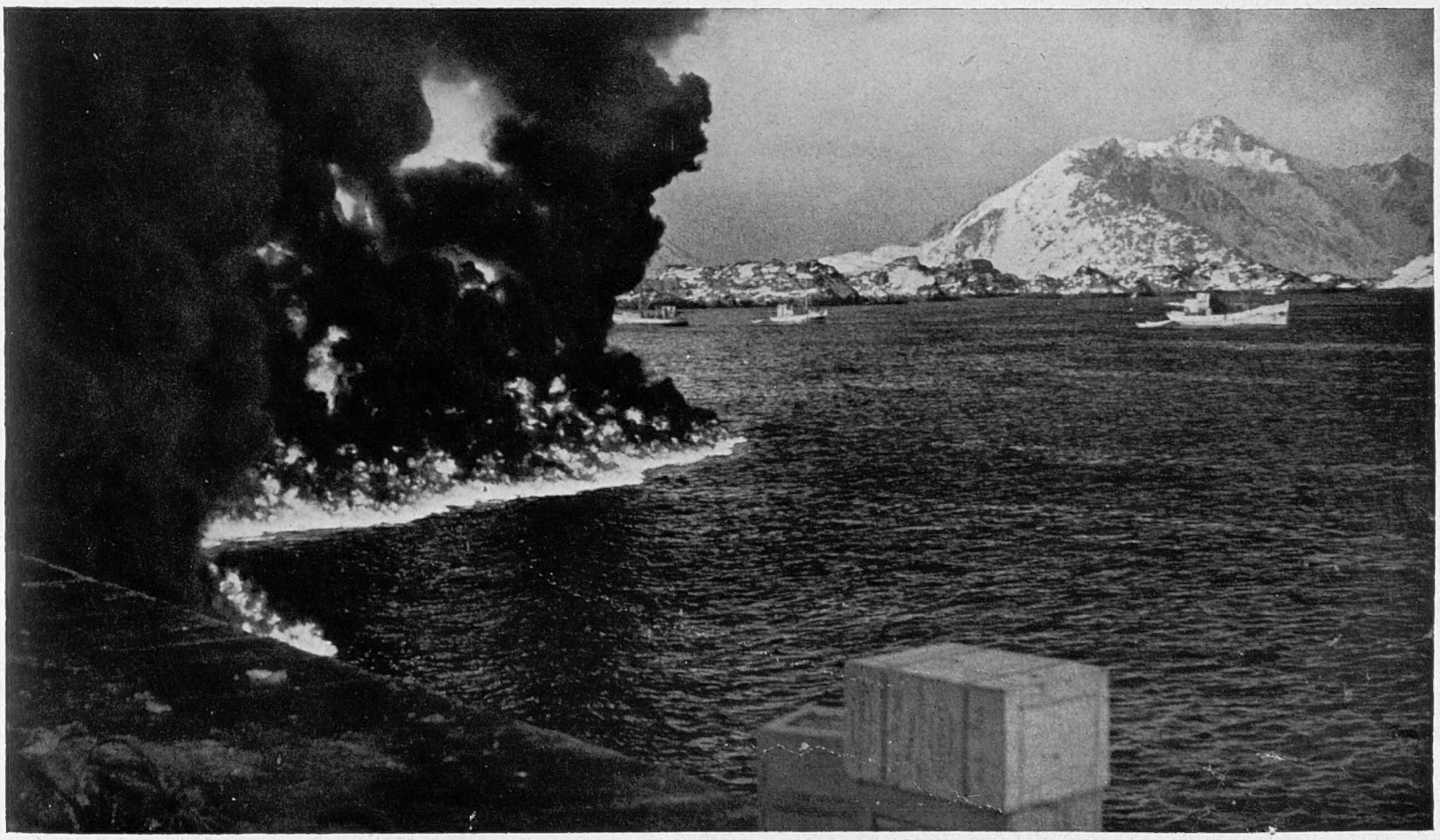
THE RAID ON THE LOFOTEN ISLANDS

British Naval and Military Forces on March 4 carried out a Daring Raid on German-Occupied Territory in Norway; and thus, once again, Demonstrated in Remarkable Manner the Striking Power of Britain. Here is the Full Story, Described and Illustrated in Detail. (With Official Photographs and Special "Sphere" Drawings and Maps)



HOW THE ALLIED FORCES DEALT WITH THE OIL PLANT AT STAMSUND, ON THE ISLAND OF VESTVAGOY: The scene on the quayside, showing some of the oil tanks on fire after being detonated, with British soldiers looking on

The highly successful raid carried out by Naval and Military forces in the Lofotens was more than an attack on German-occupied territory—it was an earnest of what the Germans may expect as our strength increases, and as our offensive plans develop. Coming so soon on the Parachute-Troops incident in Southern Italy, it may well be that the Lofoten raid will bring home to both enemies how vulnerable to attack *they* are, as well as this country of ours! The two places concerned were Svolvaer and Stamsund. Norwegian forces accompanied the British soldiers and sailors: they consisted of "uniformed naval ratings trained for land fighting." The Germans were obviously taken by surprise: many of them were, in fact, in bed; and the subsequent rush of the Allied forces through the streets and into the factories took everybody by surprise. On the Island of Vestvagoy, the harbour of Stamsund was attacked—the oil plant, so prized by, and so important to, the Nazis, was destroyed; and at Svolvaer, too, similar action was taken. In all, eleven ships were sunk, totalling 18,000 tons—nine German merchant vessels, a Norwegian ship, and an armed German trawler. Over 200 prisoners—mostly Germans, but also including ten Norwegian anti-patriots—were brought back to Britain; and more than 300 Norwegians were also brought over, at their own request, to carry on the fight against the German invaders of their land

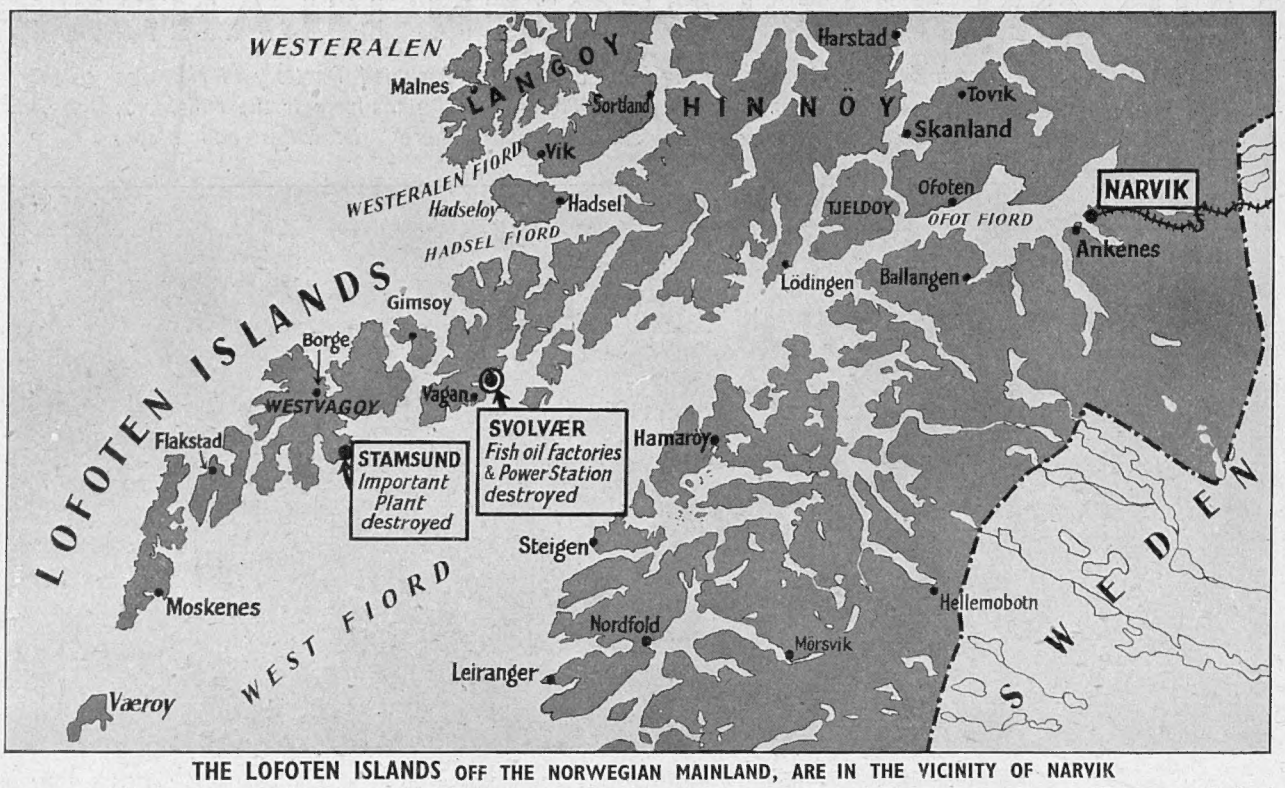


A SCENE ON THE ISLAND, WHICH HAS BEEN FINED £6,000 IN REPRISAL BY THE GERMANS: After the oil tanks at Stamsund, on Vestvagoy, had been fired, the burning oil flowed down to the sea and set even the water ablaze!

THE RAID ON THE LOFOTEN ISLANDS

(Cont.)

How the Two Highly Successful Attacks Were Carried Out



THE LOFOTEN ISLANDS OFF THE NORWEGIAN MAINLAND, ARE IN THE VICINITY OF NARVIK

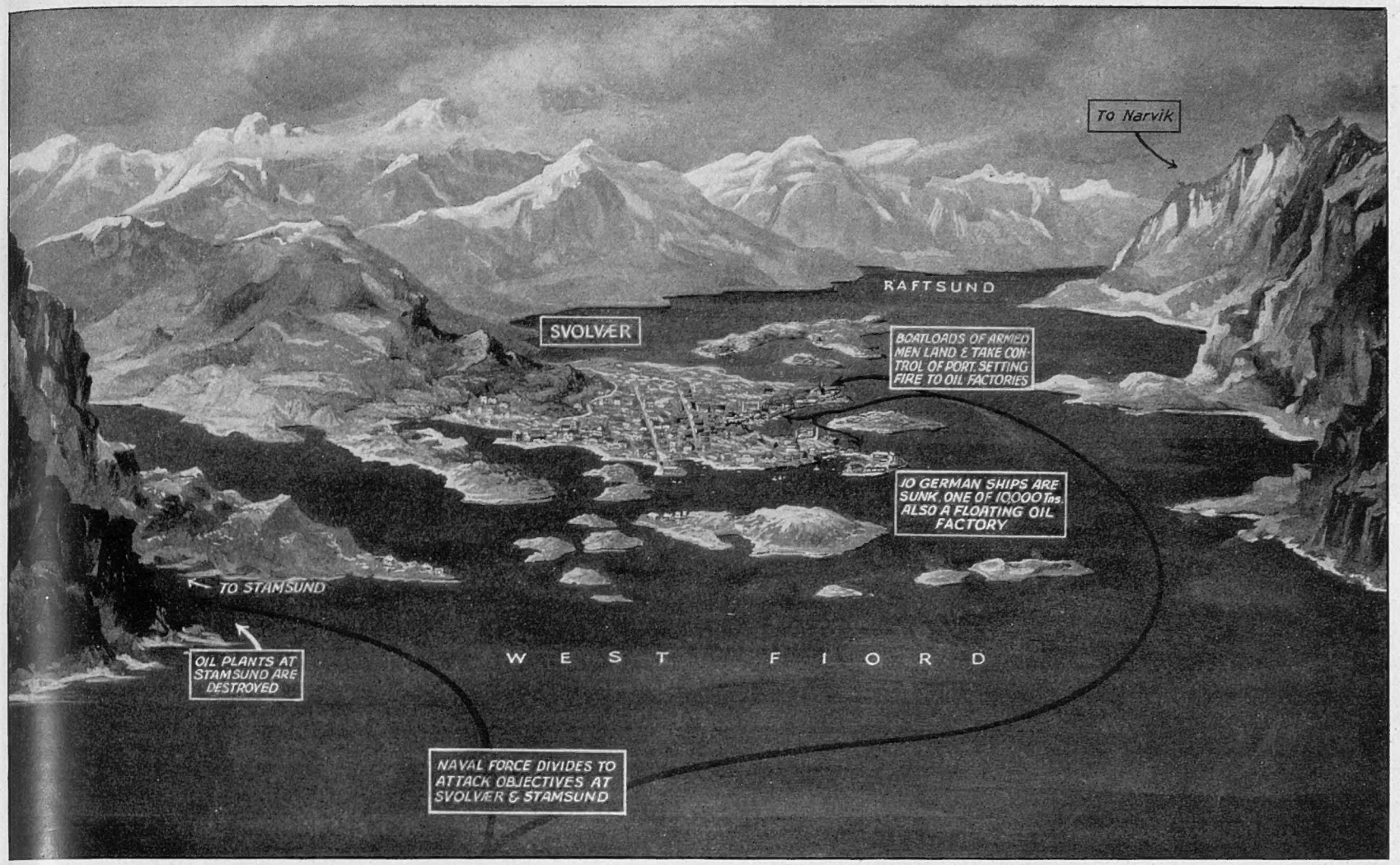
Svolvaer and Stamsund, where the two attacks were made, are situated on adjacent islands. They are the centres of all the activity in this area, and are harbours of considerable local importance. The Lofoten Islands form the westward side of the West Fiord, which leads up to Narvik: they are at their very busiest from mid-February until April, and thousands of fishermen, with their boats, congregate there during that period. The recent British attack was therefore launched at the most appropriate moment

A KEY MAP, WHICH SHOWS THE RELATION OF THE LOFOTENS TO THE OTHER IMPORTANT NORWEGIAN CENTRES, AND THE GREAT DISTANCES INVOLVED

Below—

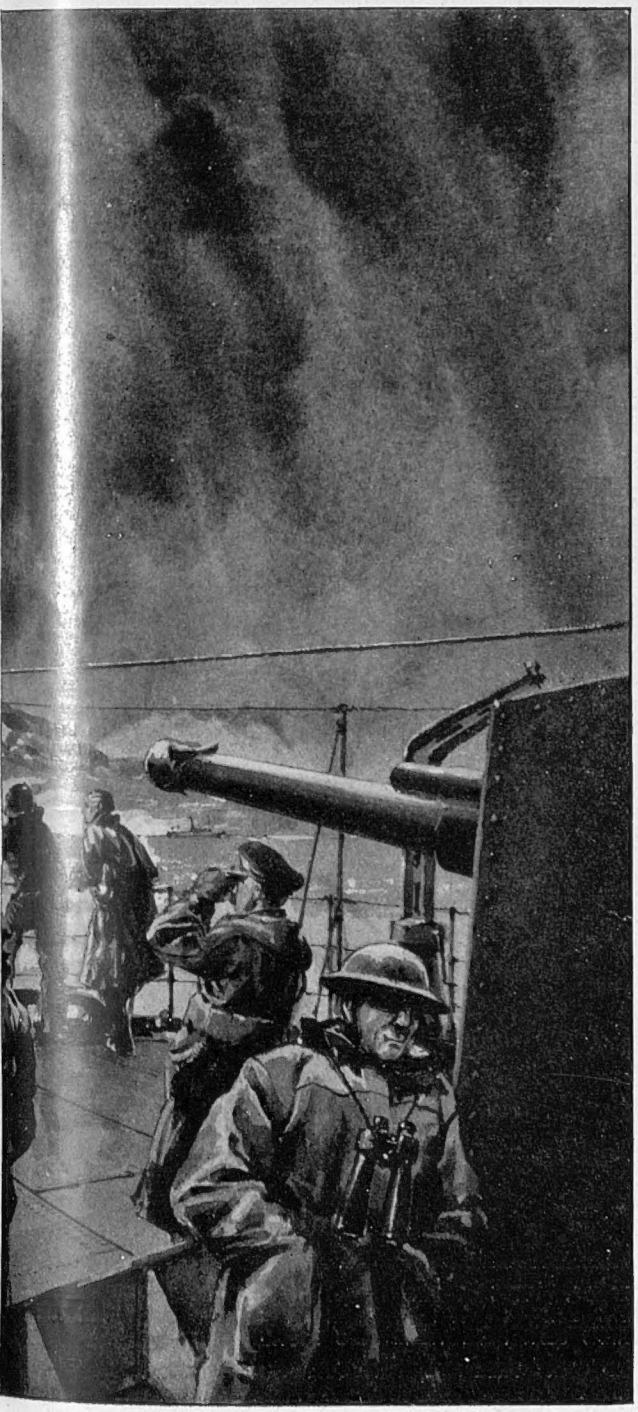
THE RAID ON THE LOFOTEN ISLANDS: The scene as the Royal Navy steamed away from the islands—*Drawing by W. MacDowell*

There was only one official "Eye-witness" of the raid: during the course of his account he writes: "I began writing as we steamed away from the islands, but as the use of our wireless would have revealed our position, my account could not be transmitted immediately. Great pillars of smoke and flame, rising against and dwarfing the snow-covered mountains which drop sheer into the sea along this part of the fiords leading to Narvik, testified to the destructiveness of the raid. One dense black column reached a height of 6,000 ft., billowing out far above the clouds. Another enveloped the mountains for miles in a thick, fog-like pall"—as depicted by our artist

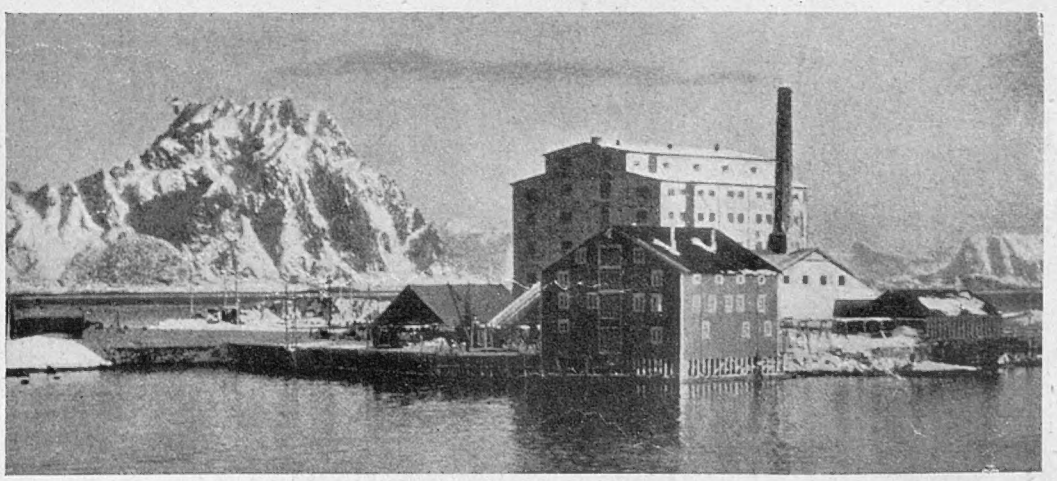


HOW THE ATTACKS WERE CARRIED OUT: The naval force splits into two for the attacks on Svolvaer and on Stamsund—*Drawing by E. G. Lambert*

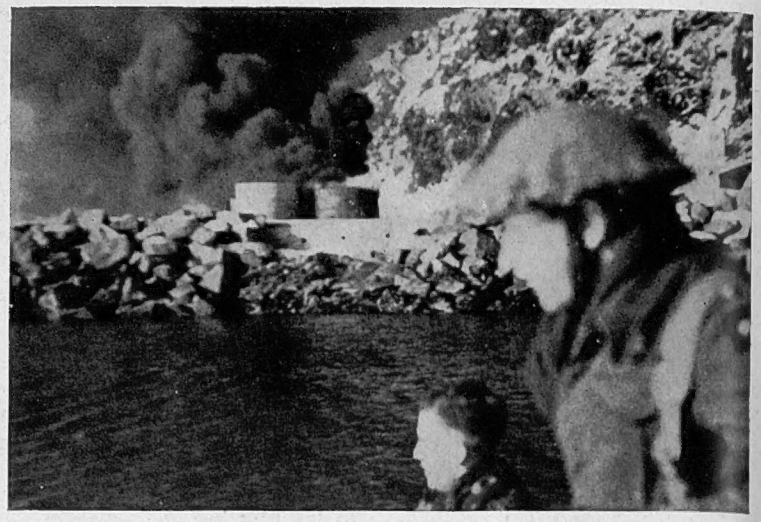
The Lofotens—a group of rugged islands lying within the Arctic Circle—are located on one of the richest fishing-grounds in the world, and they form one of the chief centres for cod-liver oil. The Germans have already spent a great deal of money on the oil plants on the islands, so valuable are the products to their war effort. The population numbers some 45,000 : the climate is relatively mild, but subject to sudden storms. All the waters in this region teem with cod, and the present moment is normally mid-season : consequently this season's production will be entirely lost to the Germans



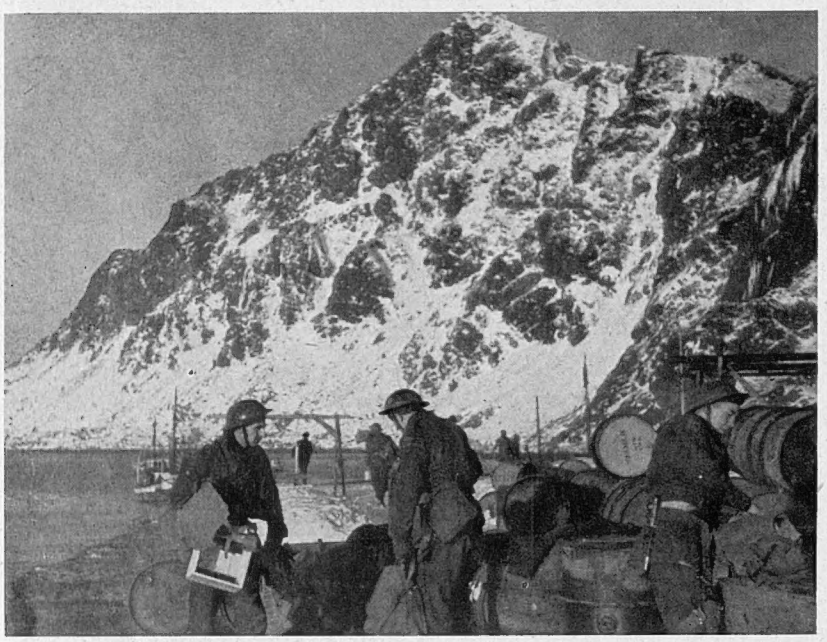
THE HARBOUR AT SVOLVAER, BACKED UP BY SNOW-COVERED MOUNTAINS BEYOND : ONE OF THE TWO CHIEF CENTRES OF ACTIVITY IN THE LOFOTEN ISLANDS

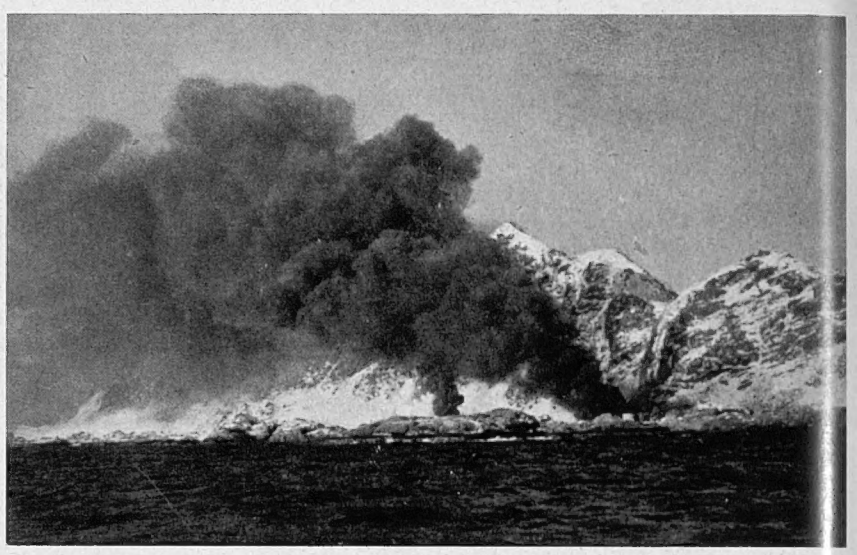


A FACTORY WHICH CAN NO LONGER CONTRIBUTE TO THE GERMAN WAR EFFORT : ONE OF THE PRINCIPAL OBJECTIVES OF THE BRITISH RAID, WHICH HAS NOW BEEN BURNT DOWN



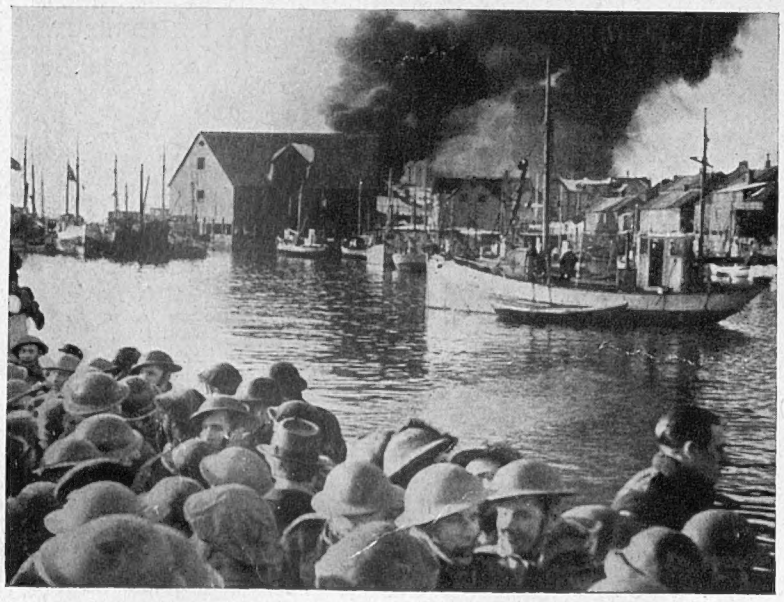
THE SCENE AT STAMSUND AFTER THE FIRING OF THE OIL PLANTS: The pictures on these pages are all from official photographs taken actually during the progress of the Raid on March 4. At Stamsund, on the Island of Vestvagoy, the havoc was complete and considerable, all the oil plants and factories on the island being destroyed, as these two pictures show

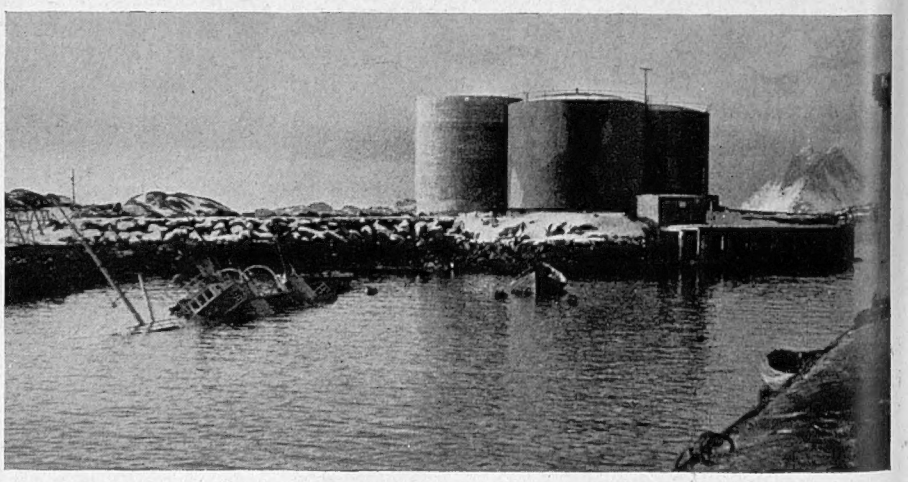




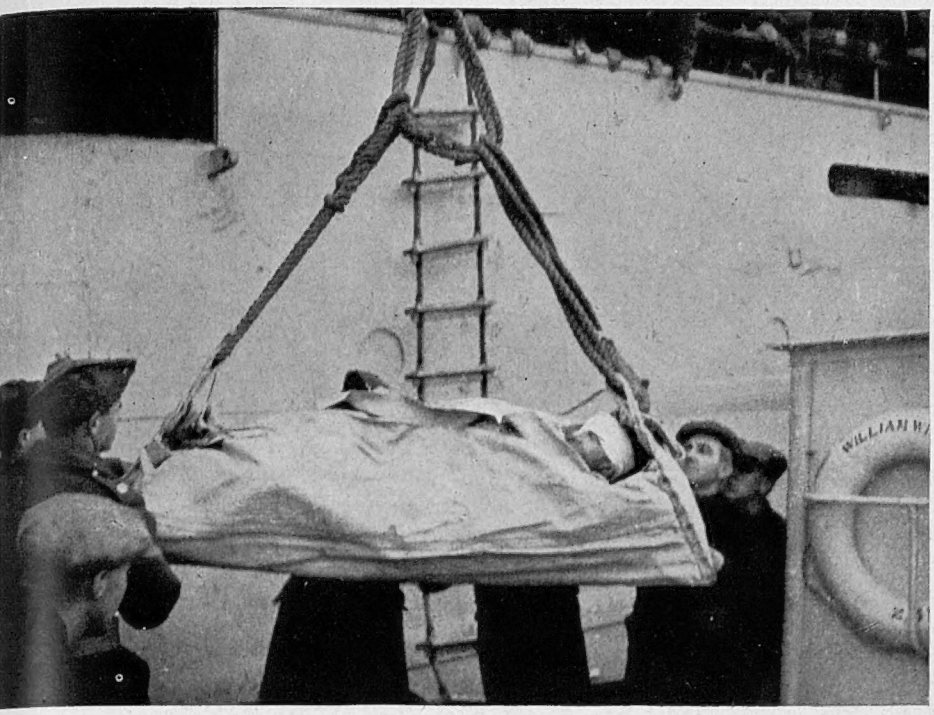
On left—**BRITISH TROOPS PREPARING TO FIRE THE OIL BARRELS ON THE QUAYSIDE** *Above*—**THE GENERAL SCENE AT STAMSUND, SHOWING THE OIL FIRES BLAZING AS THE RAIDERS LEFT THE ISLAND**

On left—**BRITISH TROOPS IN POSSESSION OF STAMSUND HARBOUR; THE TROOPS RETURN IN SMALL BOATS TO THE NAVAL VESSELS:** *Above*—The bigger vessels did not stand in too close to the harbour, but the troops forming the raiding parties were put ashore at Stamsund in small boats. The picture immediately above conveys a good impression of the snow-covered mountains of the Lofoten group of islands





On left—**LEAVING THE ISLANDS, WITH THEIR MISSION SUCCESSFULLY COMPLETED** *Above*—**ONE OF THE SHIPS SUNK IN THE HARBOUR AT STAMSUND; LATER THE OIL TANKS SEEN HERE WERE ALSO DESTROYED**



ONE OF THE GERMAN PRISONERS, WOUNDED IN THE RAID, BEING TAKEN ON BOARD A BRITISH HOSPITAL SHIP FOR TRANSFERENCE TO ENGLAND

THE MEN WHO TOOK PART IN THE RAID WITNESS ONE OF THE WOUNDED GERMAN PRISONERS BEING HOISTED ON BOARD

HERE IS A NORWEGIAN—ONE OF THE "QUISLINGS"—UNDER CLOSE GUARD ON ONE OF THE BRITISH VESSELS: THESE NORWEGIAN TRAITORS ARE NOW IN PRISON-CAMPS IN THIS COUNTRY PENDING A DECISION CONCERNING THEIR FUTURE

SOME OF THE BRITISH OFFICERS WHO TOOK PART IN THE RAID WITH A CAPTURED NAZI FLAG BROUGHT BACK FROM NORWAY

HOW THE GERMAN PRISONERS WERE TAKEN ABOARD OUR VESSELS—BLINDFOLDED AND CLOSELY GUARDED UNTIL THEY HAD BEEN SAFELY PLACED BELOW

Above—ANOTHER TROPHY CAPTURED FROM THE NAZIS DURING THE RAID

The RAID on the LOFOTENS

A Series of Official Pictures, Actually Taken During the Operations, which Shows How the British Raiders Successfully Carried Out their Work of Destruction and Secured their German (and Norwegian) Prisoners

On right — Mr. Hawes, the Norwegian Manager of Messrs. Allen and Hanbury, who has been a prisoner in the hands of the Nazis and forced to work for them. He was the only Englishman in the Lofotens: much to his joy, he has now been brought back to England—once more a free man!

FREE MEN AGAIN—IN A FREE COUNTRY!

On left—**KING HAAKON OF NORWAY ADDRESSES THE 300 NORWEGIAN PATRIOTS:** As soon as they had settled down in a London hotel, the men and women from Norway were addressed by their King. With him, in the picture, is Mr. Nygaardsvold, the Norwegian Prime Minister (on left)

Above—**THE YOUNG MEN OF NORWAY WHO WANT TO FIGHT FOR THEIR COUNTRY:** These are a few of the 300 sturdy young Norwegians who elected to come to Britain instead of staying under the Nazi yoke. They are here seen in the makeshift clothes in which they actually arrived

SEEING LONDON FOR THE FIRST TIME: Some of the 300 men and women set out for a tour of London. The young man in uniform is a Nowegian Army officer who is taking charge of his compatriots

On left—**PRISONERS AND SUSPECTS (INCLUDING "QUISLINGS") CAPTURED IN THE LOFOTENS, PHOTOGRAPHED ON THEIR ARRIVAL IN LONDON**

Above—**SOME OF THE YOUNG NORWEGIAN WOMEN, IN A VARIETY OF COSTUMES, WHO ARE NOW IN LONDON WITH THE "PATRIOTS' PARTY"**

WHEN WE TAKE the OFFENSIVE . . .

A First Approach to the Subject which is Exercising the Minds of many Englishmen at the Present Moment

—A Special "Sphere" Section

THE time is fast approaching when our forces will be able to take the initiative in real earnest—and begin the great offensive against Germany. We have been thinking for too long in terms of invasion, German drives in this direction and that. Whatever Hitler's plans, we shall be able to make our own move soon. Where?

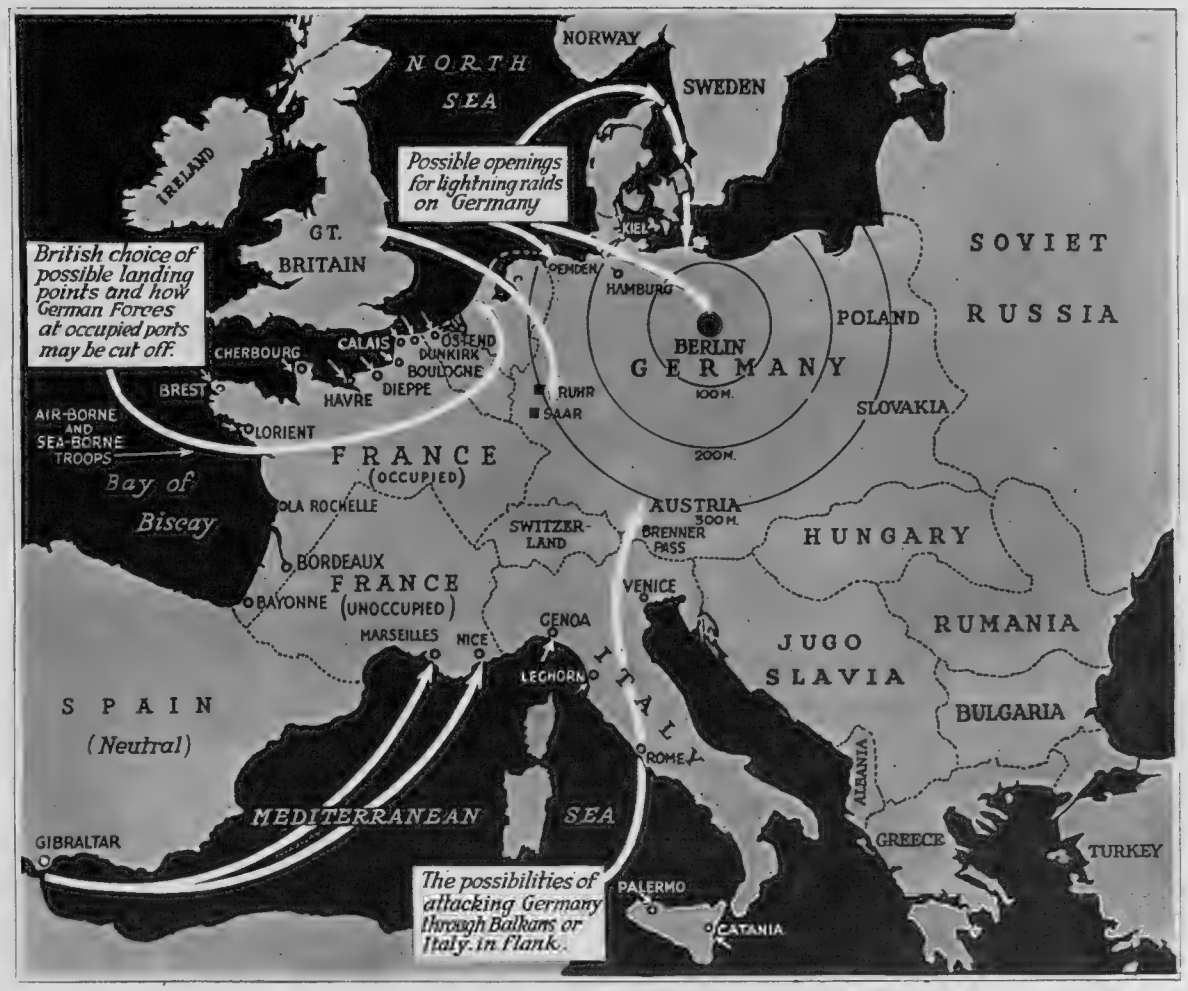
Even if one knew the exact answer to that vital question, one would not be such a fool as to print it here. But there is scope for a survey at this moment of the possible alternatives facing our General Staff. To indicate them may help to inculcate the proper offensive spirit into everybody's mind; it may also serve to keep the enemy guessing.

Conventional thinkers will be concentrating, of course, upon an invasion of France and the Low Countries. We have usually operated there; it would be nice to avenge our late expulsion; possibly it would be the best immediate defence of these islands to wrest that coastline, those ports, aerodromes and gun emplacements away from the always imminent invader.

The points in favour have been indicated. Those against include the presence of a German Army some 1,500,000 strong in occupied France, some 500,000 strong in Holland and Belgium, backed by a reserve of some 2,000,000 in Germany. Campaigns over France and the Low Countries have always been singularly indecisive, lengthy and bloody. It is pretty certain that the fresh and unused German Army would dispute every inch of French soil, and we would have little opportunity of executing, at once, manœuvres such as those employed so successfully by Wavell in Libya.

But the idea of invading France need not be totally discounted because of those objections. Here is a possible plan. Supposing we concentrated primarily on effecting footholds in certain coastal districts? This could be done if we first sent squadron after squadron of the R.A.F. over to secure local air supremacy, then landed picked invasion troops under a naval screen. The possession of those ports would (1) give us a parade ground to mass armoured divisions for an onwards drive at some later date; (2) relieve this country and its shipping lanes from part of the German air and U-boat onslaught.

The point immediately arises, however, how long could the landing parties survive under constant attack from the immensely strong German Army? Well, there might even be an answer to that, provided by simultaneous landings of other British forces somewhere along the attenuated German-occupied coastline. That line extends, remember, from Norway to Spain. Such



A. A CONSIDERATION OF THE AREAS IN WHICH GERMANY MIGHT PROVE VULNERABLE: Suggestions of some of the regions where lightning thrusts might be made on the widely-extended frontiers of German-occupied territories

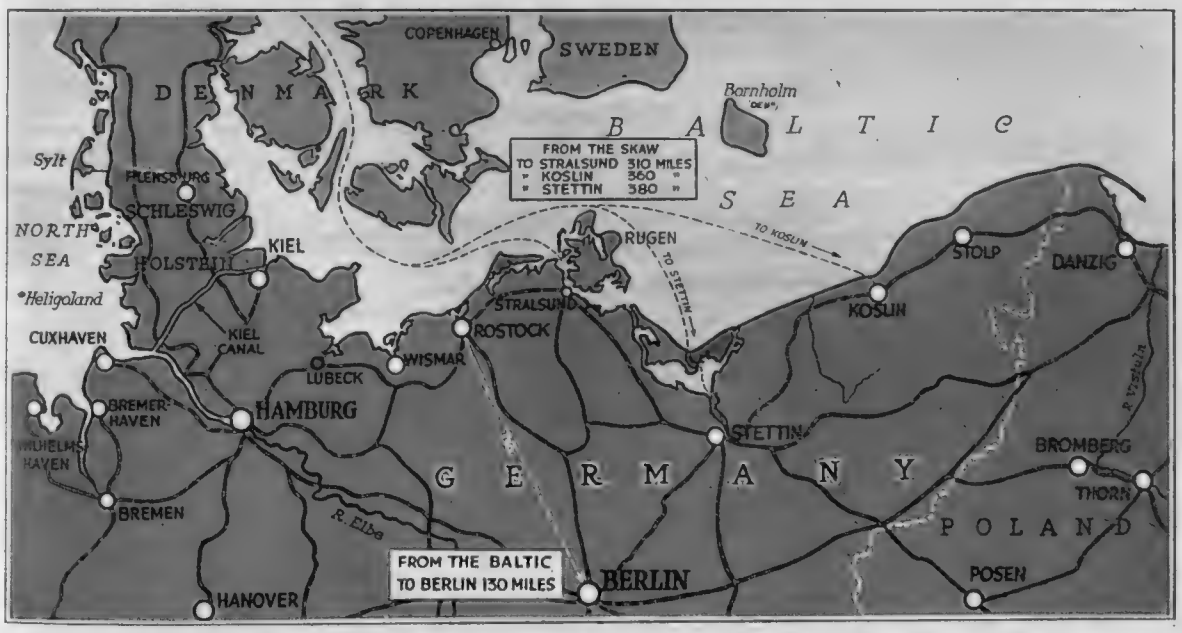
"The GREAT AMPHIBIAN"—BRITAIN

Has the time come for Britain, "the great amphibian," as the Prime Minister has described her, to exercise her power of initiative in directing an attack upon the enemy's own territory? Herr Ribbentrop, two weeks ago, on the occasion of Bulgaria's signing the Tripartite Pact with the three Axis Powers, stated that the German Army was "ready to jump" whenever the British Army appeared. In despite of this assurance of Germany's readiness to spring to the defensive, it is always desirable to prevent the German having leisure, as the Prime Minister has written, "to evolve his vast, patient, accurate designs. It is better to throw him out of his stride by unexpected action."

A glance at the map (B) given here will show how desirable it would be, when the Teutonic plans are concentrated upon the problem of brow-beating the Balkans to threaten the security of the Baltic waters. These have long been locked in winter ice, but with the coming of spring Germany's unguarded northern shore will be liable to sudden incursion at many points. The fact that the Baltic waters were held by the enemy during the last war much disturbed Lord Fisher's serenity. He evidently did not think it right from the naval point of view that this situation should exist, but he was at the same time unwilling to risk the preliminary actions which would make the invasion of this *Mare Nostrum* of the Germans possible. During his association with Mr. Winston Churchill at the Admiralty during the last war, this question of the invasion of the Baltic was frequently discussed, and that it was the third and final stage in the naval war was not disputed. The possibility, however, of putting the invasion of this inland sea into operation did not occur. The preliminary of the complete defeat of the German Navy was not accomplished, so that the further stage of constructing a particular class of vessel required for this operation was not proceeded with.

The political conditions at the present moment differ considerably from those existing from 1914 to 1918. Denmark is now an overrun country, but from a defensive point of view loosely held. Norway would be actively sympathetic to any British operations in her waters (as was demonstrated at Lofoten last week), and the Dutch would probably help if an invasion were made through their territory. But this is only one point on which the amphibious choice of Britain might fall.

A glance at our second map (A) will show the very large number of points at which the blow, or blows, might fall. The enemy could not prevent an attempt at placing a large force in sympathetic Brittany. To guard adequately the immensely long and rugged coast of this promontory of France would be quite impossible, but it is needless to point out all the places along the enemy's over-extended perimeter at which danger may threaten him. It is only important to recall that with the coming of spring the enemy's preoccupation with these possibilities will increase, and as the weather improves the necessity of keeping his army "ready to jump" at any point around his blown-out frontiers will become painfully obvious.



B. ATTACK ON GERMANY THROUGH THE BALTIC: During the last war Mr. Churchill was insistent that the enemy was particularly vulnerable in this region and wanted to carry out attacks there

landings—perhaps temporary, and so arranged that the troops could be quickly withdrawn—would keep the German High Command in a constant and salutary state of suspense, and dissuade them from concentrating all their forces against the "permanent" interlopers.

When sufficient machines, supplies and men had been landed and secured at the chosen "permanent" points, our armoured divisions, supported by the R.A.F., could at last be launched. It would be their job to repeat, exactly, the German performance of May-June 1940—namely, to thrust at top speed through the weakest spot in the German defences and progressively encircle and cut off batches of German troops, what time the army proper followed to mop up, take prisoner and, eventually, join hands with another force proceeding into France and Germany from another direction.

Discretion may go no farther as regards France. But there are subsidiary points and opportunities. One of these stands out a mile—the crumbling Axis front in south-western Europe, including Italy. Here we have what any day may develop into a heaven-sent chance. Wavell's strong Army of the Nile will be ready for employment elsewhere before long. Just consider what may happen yet. Hitler might bungle the

(Continued on following page)

A NEW TYPE OF CRAFT WHICH MIGHT BE EVOLVED FOR A "WAR OF SURPRISE"—A "Sphere" artist's conception of a shallow-draught "monitor" for use in Baltic waters or off the West German coast: For penetration into shallow waters, a craft built on the lines indicated here might prove of great value. To begin with, its "unusualness" might take the enemy by surprise; and then, having learned of the existence of such a type, he would not know where our next blow would fall—and the Germans have a coastline extending for thousands of miles to protect! The idea, of course, comes from the lake boats of the Great Lakes of Canada and the United States. By reason of their great length and general spaciousness—with engines set well aft—there would be room for a really heavy armament, as well as for anti-aircraft guns. To combat mines, it might even be possible to have a contrivance at the bows to deal with such things. Craft like these could penetrate close inshore, even into very shallow waters—as one of our monitors did off the Libyan coast—wreak their havoc and then retire!

WHEN WE TAKE the OFFENSIVE . . .

(Continued from previous page)

Balkan approach and find himself at war with Turkey, or even Yugoslavia. Bulgaria, even under the German heel, might turn this way and that at the last, and impede a clean-cut German drive to Salonika. An Allied force might find an ideal target for lightning war in an exposed German flank—across Yugoslavia or through Bulgaria, the performance accompanied by heavy bombing of the Rumanian oil wells and the German armies themselves.

A collapse of Italy, or successful invasion of that country might similarly open a route to the monster's heart, as it would certainly remove the German menace from the Mediterranean once and for all, giving us a clear run through that vital sea, and releasing warships for service with the invasion forces elsewhere.

Finally, there is the tactical side to be considered. Surely we are not completely sterile in this respect. The use of a new weapon or tactical methods, effecting the requisite surprise, would be worth many divisions to us. Just for the sake of argument, consider a remarkable lecture given some 20 years ago by Major-General J. F. C. Fuller before the Royal United Service Institution. He was talking of an invasion of Germany proper, and described "curious ships racing through the Skagerrak." He went on:—

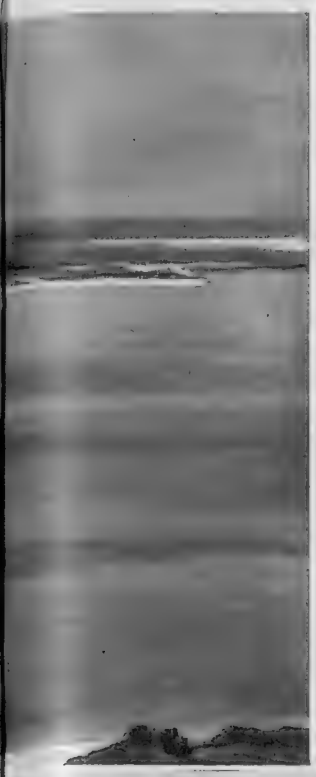
"They are now standing out a mile or more from the coast, for the water is shallow. There is a rumbling sound, then from their prows squat objects splash into the water—they are moving rapidly towards the shore line; from the water they crawl on to the sands; they are Tanks, and Warnemunde, 150 miles from Berlin, is ours."

It might even be maintained that such a picture is not so fantastic as it sounds. Given local command of the air, and effective minesweeping below—together with a technical surprise—anything might be possible in this opportunist war. One factor only governs our offensive operations in the next few months, and that is our strength. But it might be advanced that no matter the men and machines at our disposal, we could always deliver a number of feint attacks of the type outlined. These would throw the enemy into a state of confusion, and might even show us his weakness. And they would give us invaluable practice, while disposing once and for all of the German invasion threat.

D. C.

THE MARSHLANDS OF WESTERN GERMANY AS SEEN FROM THE AIR: Like Holland, Germany has in past years been busy on the work of reclaiming land from the North Sea, in the regions of the Friesian Islands, which we illustrated recently under the title of "The New Riddle of the Sands." Untilled and uninhabited as yet, it presents to the aerial camera the appearance of an intricate system of veins and arteries. Men could be landed in such spots as this for various purposes—all of which might be unpleasant for the enemy, who would also be forced to expend much time and thought in policing these areas!

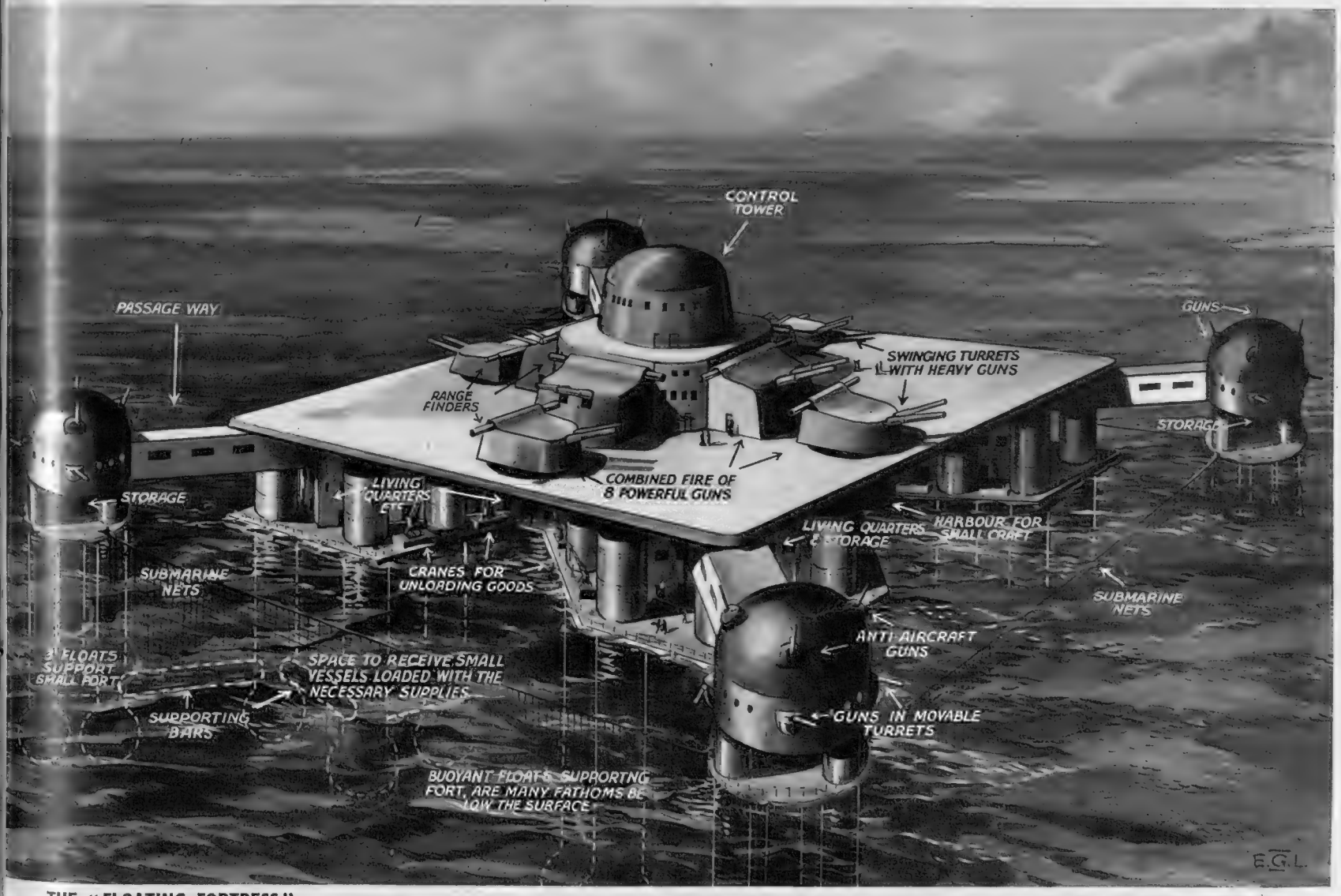
THE BALTIC IS NOT ALWAYS PLACID AND CALM: Although it is an inland sea, contrary to the general conception the Baltic can often be very stormy, as this picture, taken at the seaside resort of Kolberg, demonstrates. Coast-watching along the Baltic would therefore be by no means a sinecure, if the Germans had to maintain patrols there. And if it were known that there was a possibility of surprise attacks, hundreds of miles of lonely and marshy coastline would have to be protected and patrolled. At the moment it is regarded by the Germans as safe from attack



A FIFTY-MILES-AN-HOUR "WARSHIP" WHICH IS ALMOST INVISIBLE: When the time comes to strike at our enemy, what opportunities could such a craft as this present! It is a 70-ft. torpedo-boat without mast or funnels and so streamlined as to present no "target silhouette." This vessel has a cruising range (at a speed of 22 miles) of 1,000 nautical miles: it carries two 21-in. torpedo-tubes or four 18-in. tubes, as well as three guns, smoke-screen apparatus and depth-charges. Carried to a given point on a bigger vessel, it could wreak great havoc during surprise attacks

THIS IS THE CRAFT FROM WHICH OUR ARTIST HAS EVOLVED THE IDEA ILLUSTRATED IN THE LEFT-HAND DRAWING: This is one of the fleet of ore boats used on the American and Canadian Great Lakes. It has been evolved to carry a big cargo, and yet is narrow enough to negotiate the numerous locks. The bridge and navigating structure is well forward; and the engines and funnel well aft. What is now cargo space could be utilised for guns, ammunition, quarters for troops, etc.

A POSSIBLE BASE FOR THE "FLOATING FORTRESS" DEPICTED BELOW?: This is a "crane pontoon" which was constructed a dozen years ago at Dundee for salvage work in Egypt. An enlarged version of this pontoon might well form the basis for a floating fortress, such as that envisaged by the "Sphere's" artist and reproduced below: or a series of such pontoons—linked together—would give a good foundation for the weight it would have to carry



THE "FLOATING FORTRESS"—A "SPHERE" ARTIST'S IDEA OF PROVIDING HEAVY GUN-SUPPORT TO COVER A POSSIBLE LANDING ON ENEMY TERRITORY

There may come a moment when we may be able to cease thinking about the Defence of Britain and concentrate on the Offensive against Germany, and later carry the war right into the enemy's country. To do this it will, of course, be necessary to land armed forces, probably in the face of opposition. In order to establish our "bridge-head," a floating fortress of the type indicated here would bring a very heavy gun-concentration to support our landing. In this drawing provision has been made not only for control-tower and heavy guns, but also anti-aircraft batteries, harbourage for supply vessels and small craft, living quarters, etc. It might be necessary to have this fortress towed out to its destination, escorted by the vessels of the Royal Navy. It would combine the function of a strong concentration of gun-power just at the spot required with that of a base from which mosquito-craft could operate or find necessary shelter. Its employment may be impracticable under present conditions, but in a "war of surprise" a structure such as the above might prove the deciding factor in landing operations. It would certainly keep all the members of the various German Armies of Occupation in a constant state of the "jitters," and prevent their transference to other areas of conflict

THE CHANGING SITUATION in FRENCH NORTH AFRICA

What a Study of the Little-known Franco-German Armistice Terms Reveals; and the Steps Taken Recently by the Germans to Strengthen Their Hold on France's Most Important Possession in North Africa

Described by FERDINAND TUOHY

WHEN the Nazis are in full blast in one part of the Mediterranean there is no harm in looking at another extremity of that sea. It might even be advisable. Not that I am hinting at the possibility of a sudden Hitler descent somewhere between Sardinia and Morocco, much as this War Lord does like doing the unexpected, once he has fixed his opponent's attention in a certain direction. But what should be noted, if we wish to see clearly and not be led away by loose or out-dated readings, is that change is coming over the position of French North Africa, as it has lain at one side of the war since last June.

The disarray of Mussolini's empire further east has switched the Axis—read "the Nazis"—on to Weygand's realm earlier and in different rhythm to that originally intended. Trading on "Oran"—heavy-with-history Oran—Hitler, master manipulator of men, for, of course, it is all he, will exercise every wile and display all guile in order to keep from Vichy the blunt fact of deathly Axis infiltration into, and undermining of, French North Africa. Yet that seems to be the game.

Apart from long-standing designs upon Tunisia, Algeria, Morocco, and Senegal (the disintegration of the French Empire is explicitly willed in *Mein Kampf*, whose author has thus far declined to retract a hyphen of anything he put in that opus), the political rôle that French North Africa has come to play as "Pétain's trump card" has undoubtedly got on Hitler's nerves. Allied hopes in relation to French North Africa must be scotched. Its air and port facilities must pass as imperceptibly as may be to Germany and Italy—always in the added hope of luring in Franco. And, as a third goal, steady Axis presence at hub points such as Bizerta, Algiers, Oran, Casablanca, must be made to operate so as to tempt the French Fleet from its intransigence. And the way to set about all this is to stick to the method of advance infiltration that has paid so well in the past up and down Europe.

That this process has already begun is testified by General de Gaulle, who told a meeting in London of the arrival of eighty picked German agents at Casablanca with mission to scatter over Morocco. According to Mr. R. A. Butler, the Germans were officers and N.C.O.s in uniform and included technicians of various kinds, this information serving to make the writing on the wall all the clearer. All these (together with a "study commission" sent by Berlin to Syria) required visas from Vichy, and one may well ask why did Vichy grant them. There we come to the core of the matter.

Under the Armistice clauses the Axis can send anyone it likes to French North Africa. Berlin and Rome merely have to say that this and that person is a member of one of the many Armistice Commissions and sub-committees sprinkled right and left from Tunis to Dakar. We have been apt to overlook the presence of these bodies and of the commanding position they occupy locally: especially have we been forgetful of their extraordinary value as advance agents of infiltration and as potential receptionists of a more signal Axis arrival one day.

I go on the principle that the Axis has always been thorough up till now, and that it has always acted swiftly. Very well. It has had nine months in which to implement on the spot the rigorous disarmament terms of the Armistice as this affected French North Africa. I do not profess to know a thing as to the extent to which these disarmament clauses actually have been enforced.

One can find good excuse for our not being *au fait* with this aspect. When Pétain accepted the Armistice terms at the end of last June, he slurred over their terrible nature in a brief and generalising broadcast, and when the full text of the Articles relating to North Africa later became available, we were immersed in critical days. Pétain said, notably: "Our armies will be demobilised, our material will be handed over, our fortifications pulled down, our Fleet disarmed. Our naval bases in the Mediterranean will be demilitarised. But honour will be saved. No one will use our aeroplanes or our Fleet. We will retain land and naval units essential to maintain order in the Metropolitan area and in the Colonies."

Now let us examine relevant Articles of *Le Texte des Conventions d'Armistice Franco-Italien*, a rare copy of which has very kindly been lent me by General de Gaulle's Headquarters. If these Articles have been carried into effect, and there has been no mention of the Germans and Italians encountering obstruction, only of their social ostracism, the following should be the approximate military position, proceeding from east to west:—

In Southern Tunisia the famous Mareth Line, many miles deep and confronting Libya from the sea to a chain of chotts, or lakes, some twenty miles inland in the desert, the once-heralded "African Maginot," has been demilitarised, and that since July last. What does this imply? It implies that if Wavell's men reached the Tunisian border they would come upon an area stripped of all French troops save those permitted by the Italians to maintain domestic order, and a strictly limited personnel for the protection and maintenance of field works and fortifications, barracks, magazines, and other military buildings. All fixed works and fortifications, together with their guns and munitions, had to be rendered "unusable," while the Italians had the right to commandeer anything they chose in the way of equipment.

Precisely the same demilitarisation and evacuation was prescribed for the great naval and air base of Bizerta, which had to be rendered "unusable from the standpoint of its offensive or defensive capacity," while only such vessels of war were permitted to remain there as the local Armistice Commission judged necessary for administrative purposes. All mine barrages had to be revealed and in most cases be swept up—and, incidentally, it is probably down the coastal waters of Tunisia that the Nazi transports sneak round to Tripoli.

The peace-time military strength throughout Tunisia amounted to a Division of 17,000, plus intermittent visits by a Foreign Legion regiment, usually cavalry—I once spent a day with the 3rd Regiment down at Sousse. What troops and material Weygand has been able to assemble inside Tunisia under the eyes of the Italians is shrouded over. The one thing we have to go upon is this statement by Admiral and Governor Esteva to an American correspondent last month: "The soil of Tunisia will be better respected by those who might have some idea of violating it by surprise if they know that it is well protected against any such ill-considered attempts." "He reminded me," proceeded the correspondent, "that under the terms of the Armistice Tunisia's formidable defences *are being* dismantled [italics mine]. I asked about anti-aircraft potentialities in Bizerta and along the coast hereabouts, in view of the heavy German plane concentrations in Sicily. Without expression he remarked, 'There is some anti-aircraft defence.'"

Now as to Algeria. Wherever the Algerian frontier is contiguous with Libya it had to be demilitarised to a depth of 120 miles inside Algeria, under the same conditions outlined in the case of the Mareth Line. The Italians also had the right here to relieve the departing troops of all arms and equipment they chose. To what extent they did so is another mystery.

Quite certainly the bulk of any army Weygand has got is in Algeria, but we should be unwise to guess at its striking power. A more sure source of French strength in these parts is popularly believed to be the Fleet, yet what did the Armistice exact? That all vessels should proceed to ports designated by Germany and Italy, said ports to be chosen according to peacetime stationing, and that they were to remain there unless and until given specific permission to move elsewhere. There are Armistice Commissions and Sub-Commissions at Algiers, Bone, Philippeville, and Oran, to see that ships stay put, and also to check periodically their state of "demobilisation and disarming." What does this mean? There again one can only guess.

Coming to Morocco, it does not figure in the text I have. Yet that does not appear to have prevented a considerable Italo-German Commission squatting at the Hotel Panoramic, above Casablanca. As for vital Dakar, down in Senegal, the penetration has been wholly unofficial, but no less effective for that.

Now comes the descent of a German mission on Morocco, ostensibly to control fuel supplies for the Navy and aircraft and to visit aerodromes, but far more likely, as General de Gaulle said, to be engaged upon preparing the ground for further Axis, chiefly Nazi, infiltration, and upon stirring up the natives against the French.

These German agents will have much money to hand out. They know how Fez nearly rose against the French as recently as 1937. And hard by are the stout Riffans, put out of court by Pétain himself sixteen years ago, after the Spaniards had flopped. Play on the Riffans too! Let us only hope that the splendid Corps of Officers for Native Affairs, of whom General Noguès, the present Resident at Rabat, was once the head, has not been disbanded to any extent, and that it will correct the Axis propaganda prepared for the Moors.

May one hope, also, that the B.B.C. will give every facility to Free France in London, both to address the French colonists throughout North Africa, warning them of what is afoot and setting them to combat the infiltration and its effects, and with a view to other broadcasting in Arabic. Here is a chance to direct "liberty-guidance" straight at specified territories with a solitary object in view. No better beginning for the Arabic broadcasts could be found than the following from the Nazi official *Monatshefte*: "The coloured peoples of Africa would be required to work in the plantations, but would then be sent back to their tribes. They would be barred from urban occupations, and only a limited number would be educated. The native must be handled firmly. He must feel a strong hand in control, and nothing must be conceded to him out of kind-heartedness."

Why, indeed, not put this stuff on the air, to be listened to by countless Moors and Algerians, as I have watched them listen to their own broadcasts in Fez, Tangiers and other places? (Tangier: in view of the new developments outlined above, let us watch most closely that Franco does *not* fortify the Zone.)

THE SCENE OF A GOOD DEAL OF TROUBLE—A VIEW OF ORAN: This is where the British Navy was forced to take drastic action against the French Fleet, following the refusal of the French Admiral in Command to take steps to place his ships out of reach of the Germans. It was this episode that Hitler and the Nazis have exploited to the uttermost—in season and out of season—in Occupied France and Unoccupied France. The action at Oran took place in July 1940

AN ACTUAL INSTANCE OF CAMOUFLAGE OBSERVED BY OUR ARTIST, MR. MONTAGUE DAWSON, DURING HIS SERVICE WITH THE ROYAL NAVY IN THE LAST WAR: Out of the mist comes a strange zebra-like vessel, forging through the heavy sea. Although the two vessels are rapidly approaching, it takes a little time to distinguish true form through this maze of curious bands of dark colour, which spreads fan-wise over the whole visible structure

DAZZLE PAINTING AT SEA

IN 1917 we were losing a very large number of ships in the unrestricted submarine campaign. Mr. Norman Wilkinson, the well-known marine artist, then put forward his scheme for dazzle-painting, which was based on his knowledge of ships and art, and which, as the official history of the war has it, was not intended as an extension of Nature's system of protective colouring, but was aimed at a baffling transformation rather than concealment.

By breaking up outlines and tempting the eye along deceptive lines, it was intended to make the submarine commander, taking an observation through his periscope, get an entirely erroneous impression of the course of the ship, information which was essential to him. A big splash of white on the water-line forward was indistinguishable from a genuine bow wave through a periscope, and one well-known steamer of the Atlantic Transport Line, famous for her slowness, in spite of the fact that her outline suggested speed, had an extraordinary number of escapes through submarines firing their torpedoes well ahead. Great help was also given, in the standardised ships which were built to Government order, by providing only one funnel and one mast, the latter being placed out of the keel-line, so that it was impossible for the U-boat captain to draw a line of sight on evenly-placed funnels and masts.

To the layman, the designs, with their broad sweeps of strongly contrasting colours, seemed to be bizarre in the extreme, and quite devoid of any careful plan. Nothing was further from the truth. There were a number of designs and combinations of the different sections of these designs, so that they could not be carefully studied by the enemy. There was nothing haphazard about the way they were prepared. When the outline had been sketched on paper, with due regard for the particular type of ship to which it was to be applied, a scale model of the ship was made of wood, without any unnecessary fittings, but with the greatest accuracy with regard to her shape, especially to the lines that would cast shadows or influence the effect of the light.

The wide variety of dazzle designs was one of the greatest assets of the system, yet the actual factors employed were comparatively few. The same wide sweep of black on a light ground would crop up in several schemes in different positions. The diamond dicing so popular in the decoration of Tudor ships, in which one of Norman Wilkinson's artist assistants was an acknowledged authority, came into several designs, sometimes on the hull and sometimes on the funnels. The tell-tale shadows which were so useful to the U-boat were eradicated by what seemed to be the most unpromising colours, and this was often a particularly difficult task.

Another point of particular care, which would offer the German commander a very useful angle of reckoning, was the corner of the bridge. It was useless to stagger funnel and mast when this hard vertical line showed up as plain as a pikestaff, but when a broad, dark curve started on the water-line about amidships and, leaving the hull, was continued over the side and face of the bridge, it was impossible to tell, through a periscope at any range, where the face of the bridge started and what angle it presented.

The Admiralty made every effort to obtain expert opinion on the efficiency of dazzle-painting, and it received extraordinarily varied views. The actual Navy was divided from the first, later showing a steadily growing tendency away from the scheme, although there were many definite cases which proved its success. The statistics prepared by the Admiralty Committee on Dazzle Painting after the war were quite inconclusive, because so many factors were taken into consideration that the issue was confused. As far as the Merchant Navy was concerned, there is not the least doubt that the vast majority of practical seamen were strongly in favour of dazzle-painting, and that it gave the forecastle hands a feeling of added security which was very desirable when the food supplies of the country depended on their willing service.

"ARMED MERCHANTMEN WORE ALL SORTS OF QUEER DRESS DURING THE LAST WAR": Mr. Montague Dawson, who served as a naval officer in those years, writes: "I remember passing one which seemed to have two bows. In the distance when first sighted she seemed to be two ships lying close together: but as we approached her the secret was revealed as I have indicated in my drawing. Towards her stern a fantastic fan-spray of bands and blobs of colour on the stern positively made the eyes ache."

C

THE PROBLEM OF THE PACIFIC

—A Special "Sphere" Section

Under the Urge of Her Axis Partners, the Japanese have been Making a Series of Gestures which have Threatened to Upset the Status Quo in the Far East. The Present Situation as it Affects all the Big Powers in those Regions is here fully Discussed and Illustrated

IS AUSTRALIA IN DANGER?

By DONALD COWIE

THE question posed above has been brought into prominence by the obvious effort of Germany to drive Japan on to the rocks of world war, and so embarrass us at the very moment when great events are looming elsewhere. It is as well that an attempt be made to answer it, because many people have a hazy idea of Australian defence problems—this includes some Australians themselves—and we have a sufficiency of worries and preoccupations as it is.

Three years ago the then Prime Minister of the Commonwealth (Mr. Joseph Lyons) laid down, on expert advice, the following basic principle: "The condition essential for an aggressor to invade Australia is an assurance of command of the sea-line of communication for a sufficient period to enable his object to be achieved. With the British Fleet in existence, even on the other side of the world, he cannot be certain of being allowed time to complete his operations or of not being confronted with a superior naval force. Should he accept the time risks involved, our Navy, Army and Air Force furnish us with the means to resist him until help is forthcoming."

Now, those words should be read, and re-read, very carefully, for they still contain the crux of the matter, despite that many conditions have changed in the three years that have elapsed since then. But what are the chief changes?

In the first place, Japan has come nearer Australia. Her peaceful penetration of Indo-China, occupation of strategic islands such as Hainan, and increasing influence with Thailand may be said to have lopped about 1,000 miles off the 3,000 miles that separate her from the great Australian continent. Then Australia's source of naval strength, Great Britain, has become involved in a mighty war, while her reserve source, the United States, has to some extent been attracted away from the Pacific by events.

But those are the only disadvantages that have accrued since the wise Mr. Lyons made his classic statement. On the other side of the ledger must be recorded a host of deliberately cultivated advantages, which include a great strengthening of Australia's home defences, the reinforcement of Singapore (lying as a perfectly situated watchdog between Australia and Japan) and a considerable improvement in the naval position.

Just before the outbreak of this war it was customary to say of Singapore that it might be a good defensive base, but had poor offensive potentialities, because we could not afford to station a strong fleet there. Since then, however, new building changes in the naval balance of power, such as that brought about by the virtual defeat of the Italian Navy, and the accession to our side of naval allies in the Pacific (the Netherlands East Indian Fleet and closer collaboration with the Americans), have radically altered the position. Singapore to-day could *sally forth*, and there is little doubt that if necessary the ships and aircraft based on that fortress could prevent any Japanese invasion forces from reaching Australia.

So it is very wrong to throw up one's hands at news of the developing Far Eastern situation and say: "Good Lord, that looks like the end of Australia!" It can be stated, almost with categorical emphasis, that Australia is as safe from the Japanese to-day as Canada is from the Germans.

Indeed, the analogy is a very exact one, for the distance from Tokyo to our Antipodean supply depot is practically identical with that between Europe and North America; while the intervening waters are even more tricky for an invasion force—and contain many more counter-attractions. Yes, the fact of the matter is that Australia can be regarded as one of the safest of the Dominions, and Japan would certainly concentrate on wealthy objectives nearer home, such as Hong Kong, the Philippines, Malaya and the Dutch East Indies, before venturing so far afield. Enough has now been said to dispose of the idea that Australia is at all in danger at the present time. They have been taking air-raid precautions in Sydney, admittedly, and the entire Dominion coast-line is well protected. But even bombing raids seem extremely unlikely on the face of it. The finest modern bombers do not have an effective operational range of much more than 1,000 miles (and few of them possess that). It is over 1,500 miles from the nearest Japanese islands in the Pacific capable of basing bombers to Brisbane, the nearest Australian city worth bombing. Ship-based aircraft are another matter, admittedly; but then, so (as has been indicated) are ships.

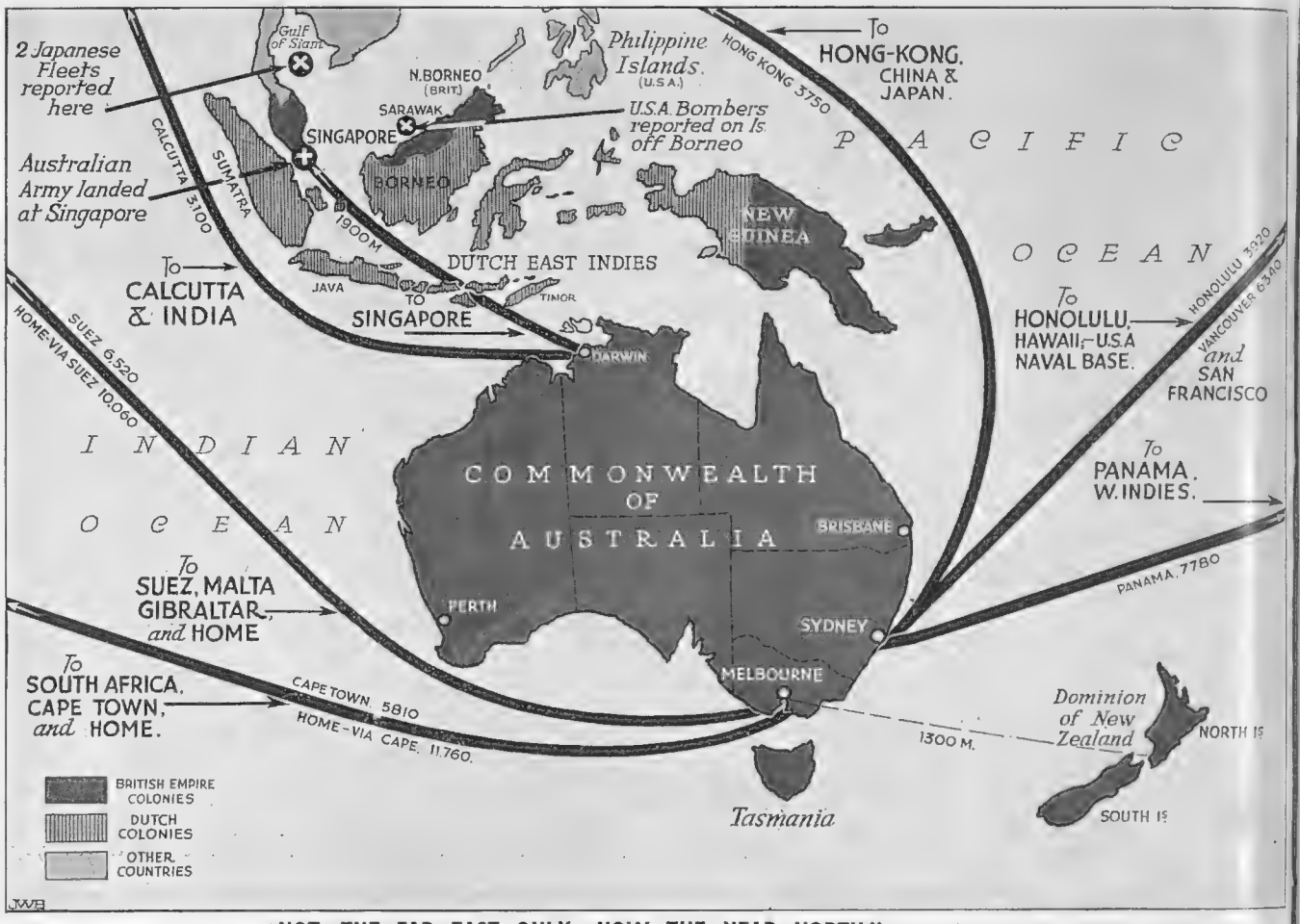
Indeed, Australia's only fear need be of raiders, perhaps carrying aircraft, but more certainly aiming at the vital Imperial sea-lanes which connect the supply-wealth of the Antipodes with, on the one hand, Africa and the Middle East, and, on the other hand, Panama and the British Isles. Undoubtedly, Australia's chief problem if Japan entered the war would be to keep those urgent lanes open. To meet that contingency, she has greatly increased the number of smaller units in her navy, has supplied all her merchant-vessels with defensive armament, and has doubled and redoubled her equivalent of the Coastal Command in the Royal Australian Air Force.

Australia knows that under present conditions she could not be attacked. But she can well imagine a state of affairs that would immediately render her extremely vulnerable. Suppose, for instance, that the Japanese conquered Malaya and the Dutch East Indies. Then they would have a fine jumping-off ground for the final Australian assault. Obviously, Malaya and the Dutch East Indies constitute Australia's first Pacific line of defence. (The Suez Canal is similarly her first line of defence in the West.)

By sending forces to Singapore, Australia is taking out an insurance against Japanese invasion, just in the same way as we sent the B.E.F. to France.

Nor should that wise, strategic gesture be in any way belittled. Second only to Canada, Australia is making a wonderful contribution to the Empire's war effort to-day. Apart from sending those famous Anzacs to the Middle East, she has, over a space of 14 months, been sedulously building up a great army and air force within her own borders, numbering some 200,000 men and several thousand machines, in addition to a Home Guard. She has kept all that back till now as a kind of strategic reserve, ready for any little tricks that Hitler might care to play with the unfortunate Japanese. The movement of a small portion of that force to Singapore is a fine justification of Australian high policy.

> "We must be grown-up people and realists, and because of that we have pursued in Australia a policy of local defence which is directed at enabling us to resist with our own forces the attack of any aggressor. I do not know why, because my country has 7,000,000 people, the element of fear should inform the foreign policy of Australia: I am prepared to give a guarantee on behalf of Australia that it never will."—*Mr. R. G. Menzies, Australian Prime Minister, speaking in London on March 3*



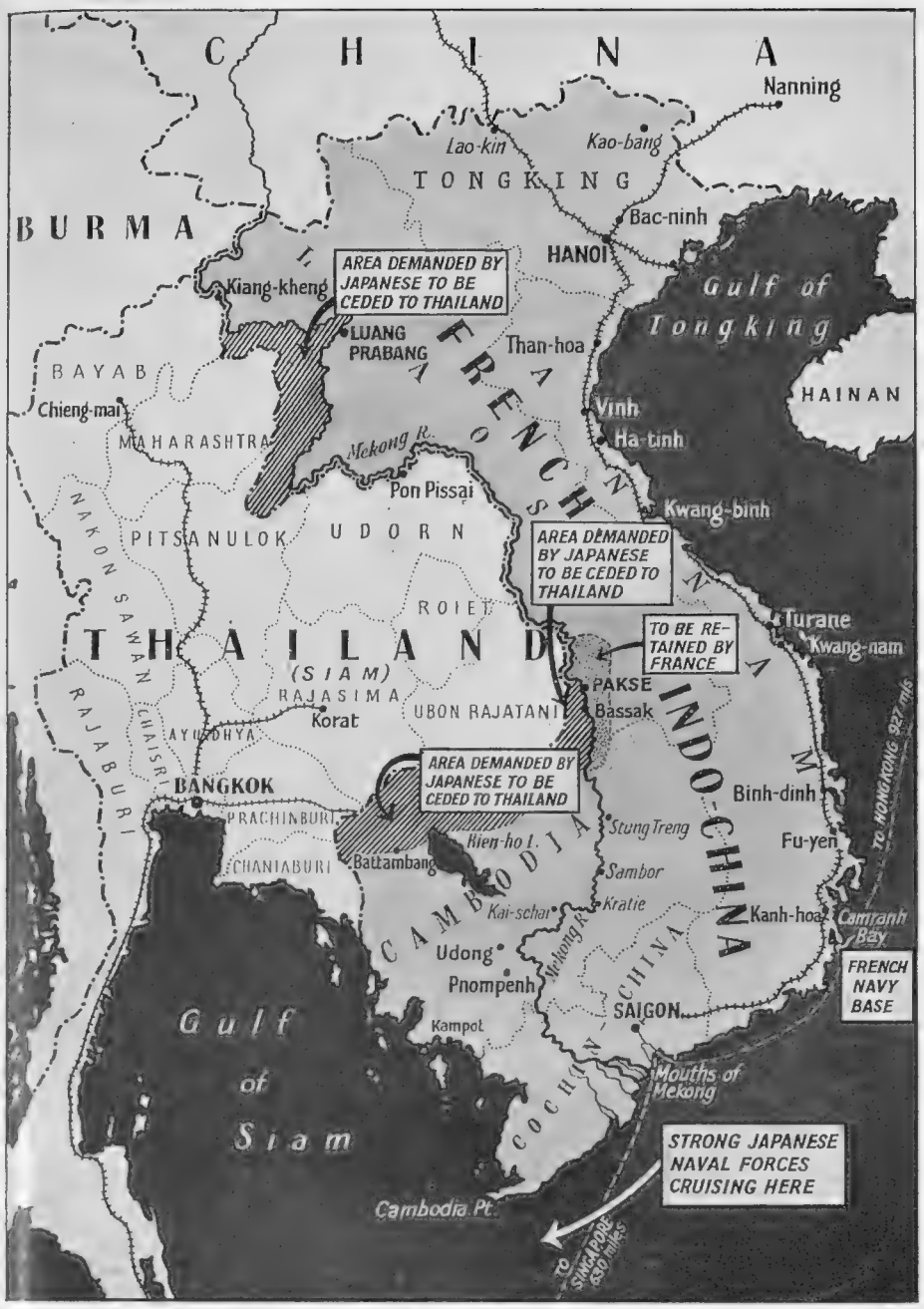
"NOT THE FAR EAST ONLY—NOW THE NEAR NORTH"—*Mr. R. G. Menzies*

AUSTRALIA'S SEAWISE CONNECTIONS WITH THE WORLD AND HER PROXIMITY TO SINGAPORE AND THE COVETED DUTCH POSSESSIONS IN THE EAST INDIES: There are seven million inhabitants of the great Australian continent; and this does not include the Dominion of New Zealand, whose problems of defence are, of course, linked with those of her bigger neighbour. From Hong Kong to Sydney is a distance of well over 3,000 miles, and Japan is equally far off: but, by the activities of the latter in Indo-China and in the Gulf of Siam, Japan has brought herself very much closer to both Singapore and to Australia. It is essential that Australia's seawise communications should be kept free, and to this end the Commonwealth is vitally interested in maintaining the great fortress of Singapore and in preserving the integrity of the rich and productive Dutch East Indies, on which Japan has been casting covetous eyes. Recent moves in this vast area have been (1) the reported presence of two Japanese fleets in the Gulf of Siam; (2) the landing of an Australian Army at Singapore; and (3) the reported presence of U.S. bombers on an island off Borneo. The interests of the United States in the Southern Pacific are, of course, vast and important

On right—

FROM HONG KONG AND BANGKOK TO SINGAPORE: A bird's-eye view of the whole area concerned in the Far East—*Drawing by E. G. Lambert*

From Hong Kong, our base in Chinese waters, to Singapore, our heavily-defended fortress in the Pacific, is a distance of 1,440 miles. Japan, too, is very far-distant; hence her recent moves southwards towards the Gulf of Siam, as Bangkok, the capital of Thailand, is only half the distance to Singapore. Hainan, in China, has already been converted into a Japanese naval and military base; but recently—taking advantage of the present unhappy position of France—Japan has pushed farther on towards the Kingdom of Thailand. One of the measures adopted by the British at Singapore has been the strong reinforcing of the garrison and the mining of a large area to protect Singapore from any possible surprise from the sea



JAPAN PUSHES SOUTHWARDS INTO INDO-CHINA

By Intervening in the Boundaries Dispute which Developed Between France and Thailand

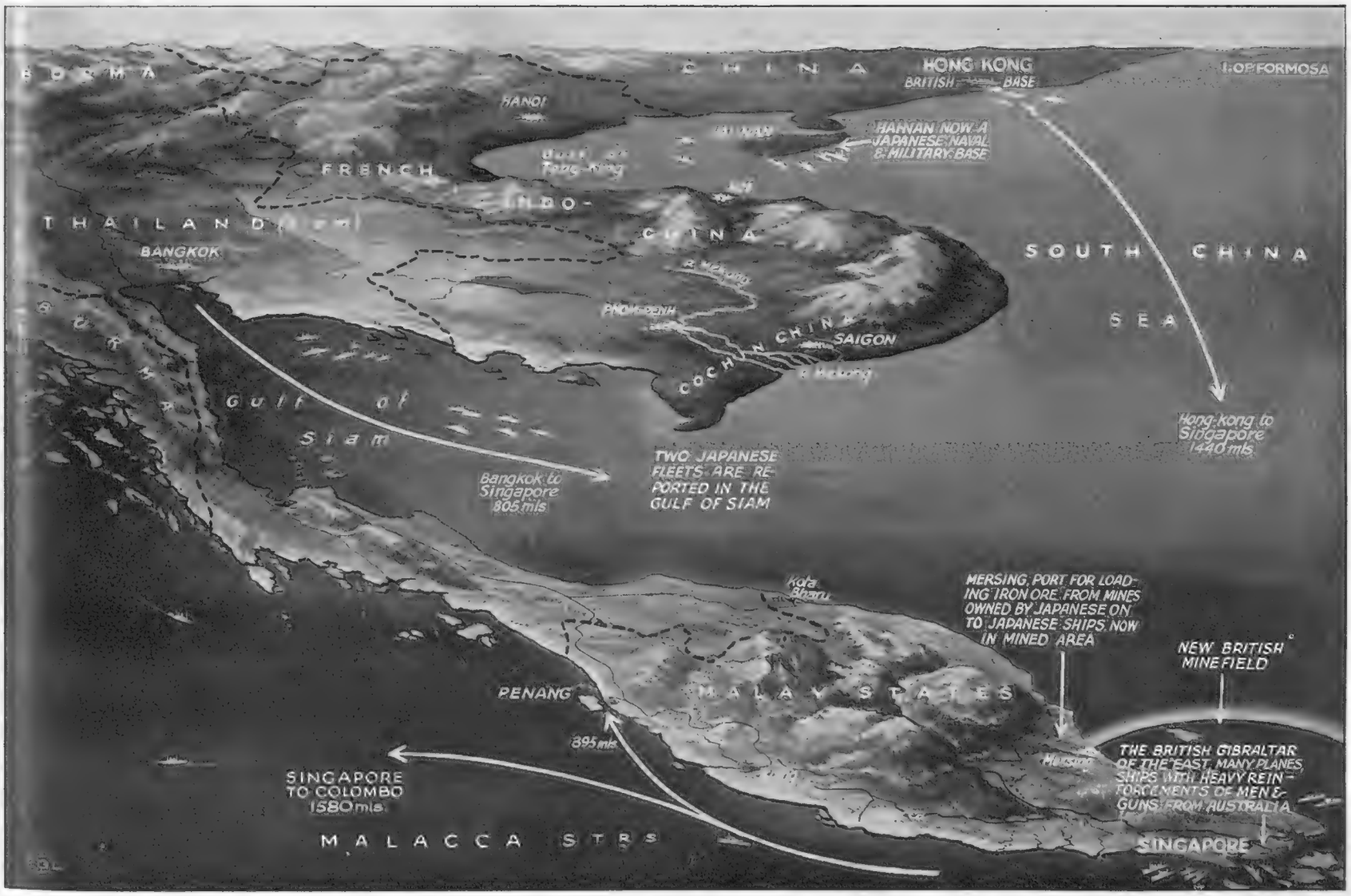
A FEW years ago the long-established Kingdom of Siam received the new name of Thailand, by order of the Siamese Government, who thereby embraced for possible future use all territories where the Thai language was spoken. The independence of Siam was maintained through British intervention in 1893, when the present boundaries were arranged. Since then there has been a traditional friendship between the two countries which was confirmed last September by the ratification of a non-aggression pact.

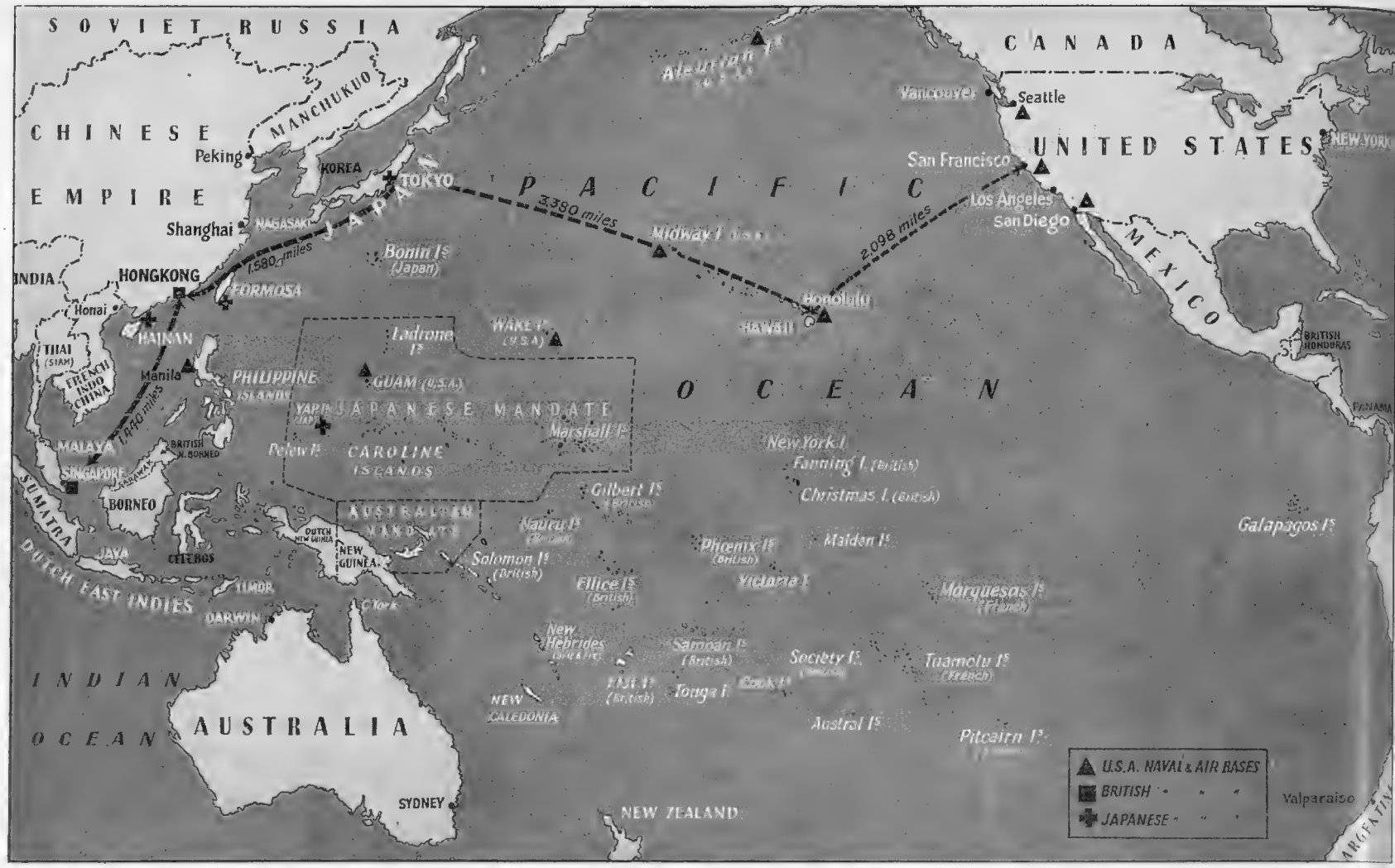
The non-aggression pact was also extended to both French Indo-China and Japan, proclaiming desire for peace and neutrality. But against Indo-China Thailand had some territorial claims which she wished to settle by peaceful discussion. It was hoped that the unsettled condition of France would make the French authorities amenable to consideration of a rectification of the frontier. French Indo-China had submitted to Japanese demands, allowing the naval bases of Haiphong, Tourane and Canranh to be held by the Japanese, but showed reluctance to yield to the more justified claims of Thailand.

Hostilities along the frontier broke out early in December, the French claiming that Thailand was the first offender. At first there were only small incidents, but the fighting grew more intense towards the end of the month, particularly along the Mekong Valley. Japan then intervened and forced her mediation upon the contesting parties, insisting upon an armistice, which was arranged on January 28. It was well recognised that Japan would not give her services for nothing, and that both countries would have to pay a price, but Indo-China was not in a position to resist, and Japan showed great "sympathy" for the territorial claims of Thailand, proving herself an apt pupil of Nazi methods. It was a distinct score for Japan to be able to force arbitration and to be able to settle the affairs of French Indo-China and Thailand to her own personal satisfaction. Her proposals for the settlement would give the district of Luang Prabang (on the Mekong, in the northern area); Pakse, on the Mekong River, in the central area; and part of Cambodia.

Thailand has been embarrassed by Japan's forced mediation, but continues on friendly relations with Britain, and insists that she has no intention of leasing any bases or giving any military help to Japan. But her territory is extremely tempting to Japan with its approaches to Malaya. It is believed that a revival of the old empire of Annam, with a puppet emperor, and a Siamese Empire under general dependency comes within the ever-widening designs of the Japanese Government. They have already planned that Thailand shall give up rice-growing, which is sufficiently produced in Indo-China, and shall be set to growing cotton, which is urgently needed. Rubber also can be encouraged, and there is probability of considerable mineral wealth, as yet undeveloped, all of which make Thailand very desirable as a Japanese dependency.

On left—
THE KINGDOM OF THAILAND AND FRENCH INDO-CHINA, WHERE JAPAN HAS INSINUATED HERSELF —AND INTENDS TO REMAIN!
In this map are shown the areas which Thailand is claiming from the French. After hostilities had broken out, Japan came along and adroitly intervened. It is now obvious that she will not leave this area, but will treat it as one of her "zones of influence," in the Nazi style. In the accompanying article a summary is given of how the present situation in Indo-China arose, and how Japan has been able to advance a step further towards Malaya, Singapore and Australia





THE ISLAND-STUDDED EXPANSE OF THE VAST PACIFIC OCEAN—SHOWING THE CHIEF NAVAL AND AIR BASES OF THE THREE POWERS : From San Francisco and San Diego, principal U.S. bases on the West Coast, to Malaya is a colossal distance. But on the westward side of the Pacific the United States has a number of important bases—some of them so powerful that, in the event of war, she could render whole stretches of the Pacific untenable for Japan. Her mid-Pacific (or should we say her advanced-Pacific?) base is, of course, the immensely strong Pearl Harbour in Hawaii. We ourselves have Hong Kong and Singapore—both of which would be ready to repel any attack and which would serve as bases for offensive operations, too. The Japs have Formosa, Yap, Hainan and the newly-acquired Indo-China harbours. Then, to the south, lies Australia, with its 7,000,000 determined inhabitants, its Navy and its Air Force

THE U.S. NAVY IN THE PACIFIC

A Brief Review of Its Strength and of Its Ocean Bases

ALTHOUGH the American taxpayer has cheerfully faced the colossal cost of building a "two-ocean navy" which is to be divided in equal strength between the Atlantic and the Pacific, the ships will take a considerable time to build, and in the meantime practically the whole strength of the American Fleet is concentrated in the Pacific, relying on the Panama Canal to transfer it to the Atlantic should a sudden emergency arise. The canal locks are now being duplicated as a safeguard, but that work, again, will take some time to complete. The bases in British North America and the West Indian Islands, leased from Britain in exchange for the flush-decked destroyers, reduce the anxiety in the East, for they cover most of the approaches to the American coast, and the assurance that they give has prevented the U.S. Government weakening the Pacific Fleet in consequence of German and Italian threats.

The ships of this giant fleet have now been together for several years and have been on a war footing for the last eighteen months. Money has not been stinted for tactical exercises and gunnery practice, which have been carried out continuously with the incentive of sporting competition to keep the men keen and to prevent them getting stale. These exercises have been carried out in all weathers and generally at high speeds, so that the whole personnel of the U.S. Fleet is now in a remarkably high state of efficiency. Desertion, the traditional curse of the American Navy, is practically non-existent, and there are more recruits than the Navy can absorb, in spite of the special training establishments which have been opened.

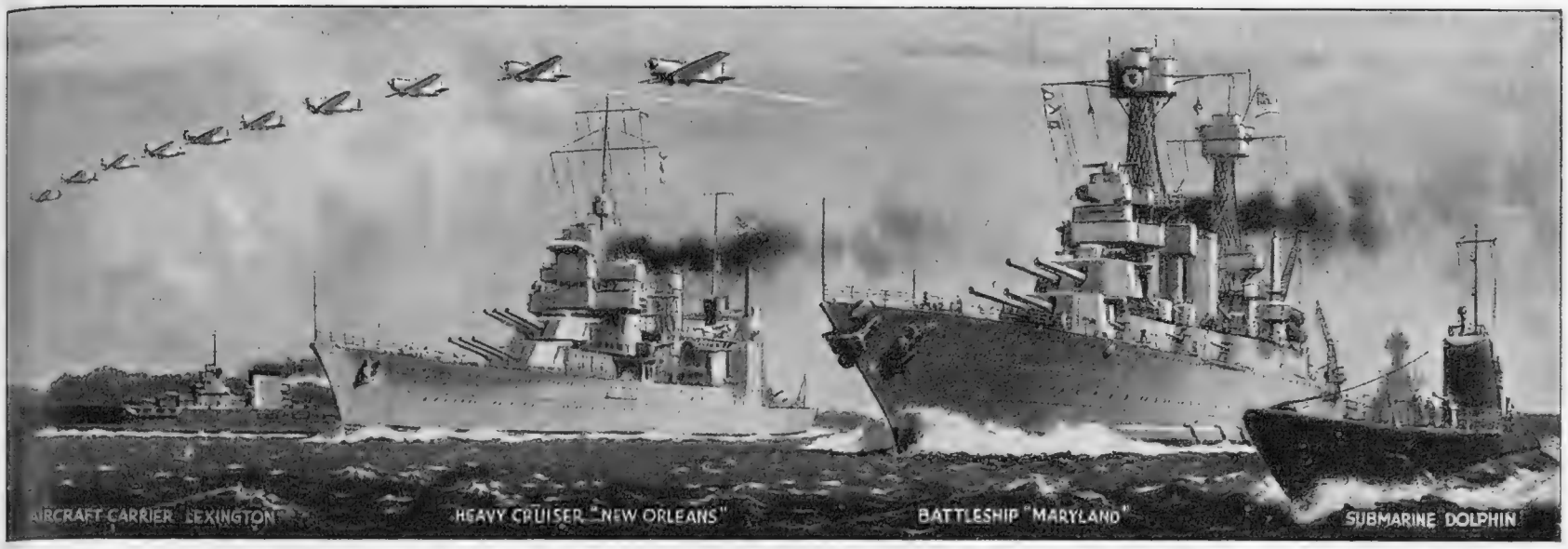
Battle fleets cannot, of course, operate for very long without bases, and although the U.S. Navy is well equipped with these on its own coast—Mare Island in San Francisco Bay, Bremerton on Puget Sound, and San Diego in Southern California—they are well away from the area of hostilities if the Japanese attack the Philippine Islands, and interfere with America's big trade in the South Pacific.

Pearl Harbour, in the Hawaiian Islands in mid-Pacific, is one of the finest bases in the world and well fortified, while in the inhospitable Aleutian Islands, Dutch Harbour has been developed as a naval air base, which is of particular value on account of the Japanese dread of fire.

Further south, the Philippines and Guam, although of considerable natural strength, have not been developed

On left—

THE UNITED STATES' POSSESSIONS IN THE CHINA SEA—THE PHILIPPINE GROUP, WITH THE NAVAL BASE AT MANILA : This group of Islands in the northern part of the East Indies numbers more than 3,100. Until 1898 they were a Spanish possession ; as a result of the Spanish-American War they then became American. The wonderful harbour at Manila is now a U.S. naval and air base, and in recent years its position has been immensely strengthened by the fortifying of Corregidor Island, which is illustrated in detail on the right



TYPES OF THE VESSELS WHICH FORM PART OF THE U.S. PACIFIC FLEET: EACH OF THESE CLEARLY SHOWS THE TYPICAL BOW FAVOURED BY AMERICAN NAVAL CONSTRUCTORS. Overhead are the dive-bombers which the United States was the first country to introduce—*Drawing by W. MacDowell*

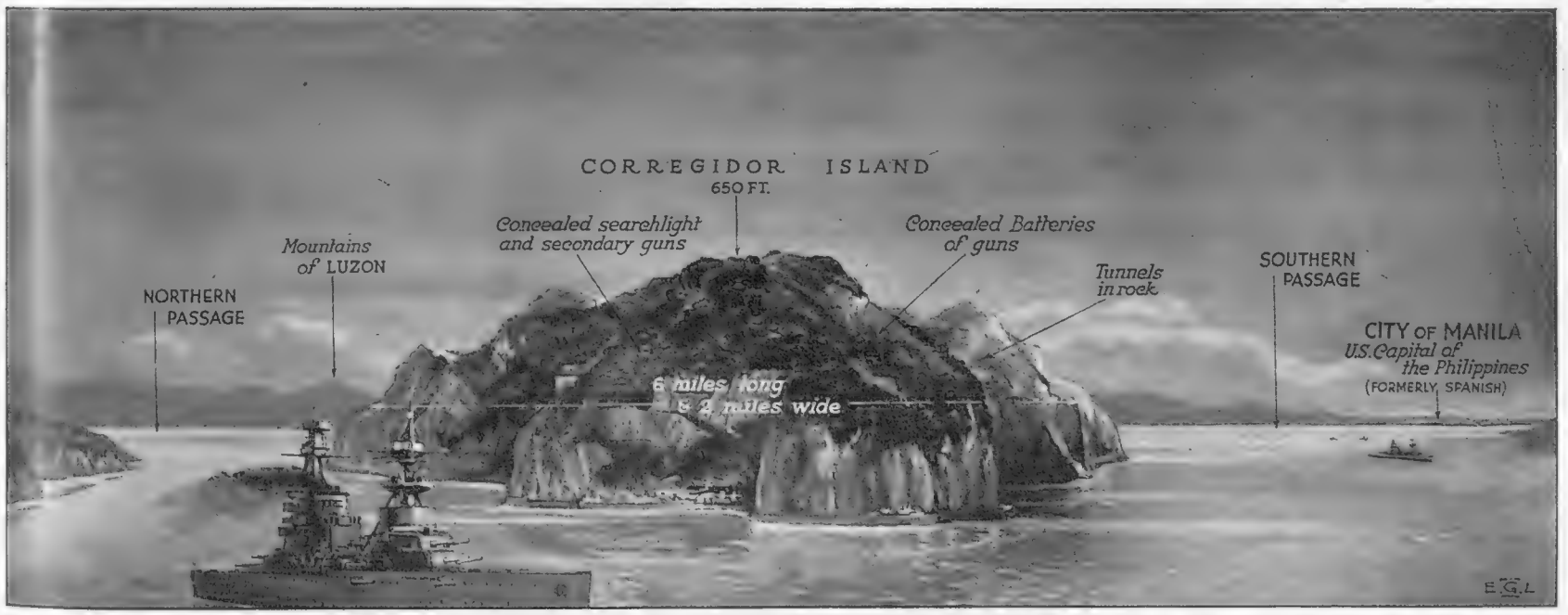
Distinction has been a feature of American design from the earliest days, for their naval architects have always been strong in individuality and have never been nervous of striking out on a new line. For years the heavy bow weights of a battleship's forward guns in their armoured turrets demanded an immense amount of buoyancy: the usual method was to retain the old ram form of bow. The Americans, however, worked for a handier battleship and supplied the necessary buoyancy by a very exaggerated flare, coupled with a stem which was cut away as much as that of the old sailing-clippers. All the vessels above, including the submarine, clearly show this type of bow; and even their new 35,000-ton battleships are built on similar lines. The control towers of the U.S. ships, too, are worthy of notice, exhibiting as they do the latest ideas in naval construction. It is interesting to note that the United States was the first country to adopt the dive-bomber type of aircraft—an idea which was copied from them, and with deadly effect, by Germany for many of the operations in Europe

and fortified out of deference for Japanese feeling, and the American heavy ships would have to rely very largely on the facilities that the British Navy would provide at Hong Kong, Singapore, and the commercial ports of Australia, most of which are particularly well equipped for ship-repair work.

Realising this weakness, the United States Navy has recently taken many measures to make the Pacific Fleet as self-contained as possible. A number of fast cargo liners built by the U.S. Maritime Commission for commercial work, ships with a speed of 14 to 18 knots, have been taken over by the Navy as supply and munition ships, and a number of liners have also been purchased as transports. The U.S. Marine Corps, which is always the spearhead of American operations, has its own transports, which are specially fitted for rushing a strong force to any threatened point. Several ships have been elaborately fitted out as tenders and repair depots for aircraft. Some time ago the American Treasury offered a special subsidy to oil interests who would build tankers with a speed far in advance of the ordinary economic standards, and several of these have already been taken over by the Navy. At the present time the U.S. Naval Train, as they call their supply service, is, next to the Japanese, the fastest in the world, and quite capable of keeping up with a battle fleet at any ordinary cruising speed, although it would naturally be detached if a fleet action were pending.

THE MOST POWERFUL AMERICAN NAVAL BASE IN THE MID-PACIFIC AND ONE OF THE MOST IMPORTANT NAVAL BASES IN THE WORLD—A bird's-eye view of Pearl Harbour, Hawaii—*Drawing by E. G. Lambert*

This is the main U.S. naval base in the Pacific, and it is considered impregnable. It is some 2,000 miles from San Francisco to the east; 3,400 miles from Tokyo to the north-west; and nearly 5,000 miles from Manila in the Philippines. It is the only base west of San Francisco where the main Fleet could shelter or refuel and refit in time of war. Pearl Harbour is, in fact, the hinge of present U.S. naval strategy and on it the United States Battle Fleet would be based in a war in the Pacific. The entrance to it, as shown above, is through a break in a long reef which leads to a harbour big enough to float a very large fleet indeed



"THE GIBRALTAR OF THE FAR EAST": CORREGIDOR ISLAND, WHICH GUARDS THE ENTRANCE TO MANILA BAY IN THE PHILIPPINES AND WHICH IS A KEY-POINT IN U.S. NAVAL STRATEGY—*Drawing by E. G. Lambert*

Alone amongst English newspapers, the *Evening Standard* has recently published a report from its New York correspondent on the wonderful defensive scheme represented by unique Corregidor Island at Manila. The appearance of this "Gibraltar of the Far East," as American naval men term it, and its unique situation, are here pictured by a "Sphere" artist. "One way or another, any enemy driving down from the north must somehow pass the Philippines on the way to the Dutch East Indies or to Singapore," runs the *Evening Standard's* report. "The entrance to the magnificent anchorage of Manila Bay is 12 miles wide. It narrows down to a deep-water strait, right in the centre of which stands Corregidor's island, a fortress rising 650 ft. out of the water. Corregidor is six miles long and two wide. The passages on each side of it are so narrow that a good shot from the deck of a passing ship could bring down game on either shore. The island's rocky terracing is as thickly honeycombed with defence works as Gibraltar, on which it was modelled. There are batteries of big guns, clusters of smaller guns. Scores of anti-aircraft guns. Batteries of searchlights. Linking them all up are vast networks of tunnels hewn from the solid rock and wide enough for a double-track railroad or a constant stream of Army lorries. Deep inside the hill fresh water, food, ammunition, medical supplies are cached. There is a full-size hospital far down in the rock, safe from the heaviest bombs or from days of constant pounding by naval guns." Years of solid work have gone into making Corregidor as nearly impregnable as any man-made defences can be

The PROBLEM of the PACIFIC *(cont.)*

THE U.S.S. "PENNSYLVANIA" FROM THE BOW, showing her fire-control top for scientific gunnery. It will be noticed that the triple turrets carry their guns much closer together than in such ships as the *Nelson*. They were among the first to be mounted and the guns are in one solid mounting so that they cannot be laid independently

HOW THE "PENNSYLVANIA" CARRIES HER SEAPLANES: Another view of the huge fire-control tower, which caused the former "waste-paper basket" masts of the U.S. Navy to be abandoned for the British tripods. The picture also shows the awkwardness of placing seaplanes in ships which were not designed for them

THE U.S. FLEET RETURNS AFTER MANŒUVRES TO "BATTLESHIP ROW" IN LOS ANGELES HARBOUR: On this occasion the Fleet was led into harbour by the *Pennsylvania*. There were 11 battleships, 14 heavy cruisers, and 2 aeroplane-carriers, which brought back 55,000 men and 3,600 officers. This picture, showing big ships handled in the most intricate formation, is a very good example of the manner in which the American naval officer can compare with any in the world for seamanship

ONE OF AMERICA'S RECONSTRUCTED BATTLESHIPS OF THE NEW YORK CLASS, WHICH MOUNTS 10-IN. GUNS

AN EXCELLENT EXAMPLE OF THE SQUARE STERN: The U.S. cruiser *Boise*, which has ample room for the ship's planes, which are taken on deck by a lift at the stern and discharged by the two catapults which are clearly seen. The *Boise* was the first American reaction to the "Washington" 8-in. "tinclad" type, mounting fifteen 6-in. guns in five turrets—three in a pyramid forward and two aft—instead of the 8-in. guns. She was launched in December 1936 and completed in 1938. It may be noted that she is a fine seaboat, whereas the Japanese cruisers, mounting fifteen 6-in. guns, were notoriously unstable

A Note on AMERICAN NAVAL DESIGN

THE United States Navy is very much in the limelight at the moment, and it is interesting to note some of the peculiarities of their design, for, like the British, their warships are entirely distinctive.

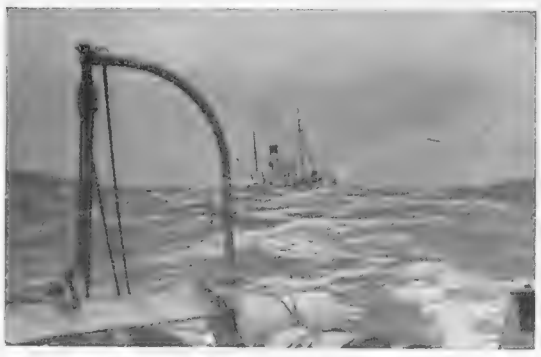
For years American battleships were recognisable all over the world by their tapered cage masts, which were irreverently known as the "waste-paper baskets." The Americans built up their masts of steel tubes, spirally arranged, which could withstand an extraordinary number of shells right through them without coming down. For a time this was satisfactory enough, but as gunnery control became more and more precise, the whip of these masts as the ship rolled was too much for the delicate instruments and the U.S. designers cheerfully turned to a very heavy adaptation of the British tripod.

The question of how side armour should be distributed is always a great problem for an architect, for it is impossible for any modern ship to carry the weight of a belt of equal thickness from stem to stern. The usual compromise is to have it at its thickest amidships, tapering at the ends, but the Americans revived the "all or nothing" school for modern ships, concentrating the weight available on the thickest possible armour amidships and protecting the ends as lightly as possible, considering the safety of the ship.

The American aircraft-carriers are just as distinctive in their design as their other ships. The *Lexington* and *Saratoga* were converted from uncompleted battle-cruisers whose original design provided for a phenomenal horse-power by putting half the boilers above the armoured deck and fitting no less than seven funnels. As they were rebuilt as aircraft-carriers they have apparently only one funnel placed right over on the starboard side of the ship according to the usual practice, but actually there are four funnels in a single casing to reduce wind resistance, the ends of the casing sloping inwards like the Frenchman's traditional top-hat.

In the design of their cruisers the Americans make a great point of their aircraft. Where the hangars should be best placed is always a big problem. In several American classes these hangars were placed amidships in traditional fashion; then they broke right away and gave the ships a huge square transom stern with the catapults and recovering cranes over it.

Although they have gone back to the topgallant forecastle on account of its many advantages when the factor of rapid construction no longer had to be considered, the latest types of American destroyers and flotilla leaders are just as interesting, and contain just as many striking innovations as the flush-deckers during the late war. It is just the same with the submarines, patrol boats, motor torpedo-boats, and other types; all through the U.S. Navy there is a striking individuality of design.



SWEEPING THE SEAS IN AUSTRALIAN WATERS: Recently the American ship *City of Rayville* and a British freighter were sunk off the Australian coast by enemy mines. Minesweepers were soon on the scene, however. They located the minefield and were able to destroy several mines. Here is a vessel at work sweeping the famous Bass Strait

SYDNEY BEGINS WORK ON ITS NEW GRAVING DOCK: Sydney is one of the world's big harbours. It will soon also possess a huge new graving dock which will be large enough to accommodate big ocean-going vessels. In the above picture taken at Pott's Point one of the approaches to the dock is seen taking shape. Recent developments in the Far East will undoubtedly cause a speed-up in this work

IN THE TERRITORY WHICH THAILAND IS NOW CLAIMING FROM FRENCH INDO-CHINA—A SCENE IN THE VIRGIN FOREST COUNTRY OF LAOS : This is to-day one of the most primitive regions left in the world. It consists in large part of a wild region where the vegetation is so rank and thick that the natives rarely see the full sunlight. The natives are passionate and fearless hunters, and their primitive abodes are mere huts

THIS IS A CONTRASTING SCENE IN THE PROVINCE OF TONGKING, ALSO IN INDO-CHINA : Here the country has changed : in place of the wild jungle is a scene of almost Highland grandeur and simplicity !

MEN OF TONGKING—TYPES OF PROFESSIONAL INSTRUMENT PLAYERS OF THE MEO HOA TRIBES

LIGHT ON INDO-CHINA

A Note by Hermione Beauclerk

THE present focus of interest in the Far East is on French Indo-China, which covers a tract of widely different land, some twenty-nine thousand square miles ; enclosed in the huge S of its frontiers live more than 17,000,000 people, ranging from the short, primitive Mois, of doubtful origin, to the tall (for those parts) swarthy Tongkingese.

He who has travelled in Indo-China will retain two very vivid and contrasting impressions. The one of tall mountains, thickly forested, frowning down on huge rocks among dense jungle, where panther and tiger wander unconcernedly across such roads as there are ; the other of endless plain, yellow and dusty, broken by only a few twisted and starved trees, or miles of rice-fields, where man has laboriously turned the vast water supply of the Lower Mekong to his own use.

French Indo-China consists of five lands, each with its own natives, though throughout the preponderance of the Annamese is very great. The most fertile regions are around the deltas of its two main rivers, the Mekong, in the south, and the Song Ku, or Red River, in the north, and the busy ports of Saigon and Hanoi owe their wealth to the immense rice cultivation of those regions respectively.

Indo-China is prepared for war. As early as June last, orders went throughout the country that trenches and air-raid shelters must be dug. Censorship is immensely strict, especially at Phom-Penh, in the heart of Cambodia, where the King of Cambodia has his Imperial Palace and presides directly over the Cambodians, under the advice of the French *Resident Supérieur*. Communications with the rest of the world are extremely limited. Very few ships sail into the big docks at Saigon. The air-mail service from Saigon to Hanoi runs irregularly, and a Dutch air-mail occasionally goes to Singapore.

In that long mountain range which runs from Tongking to Saigon, separating Laos from Annam, and slopes to the long coastal plain with the excellent harbours of Saigon, Hanoi, Haiphong and Tourane, lies immense wealth. Timber, both hard-woods of great value and the "paper tree," lines the slopes of these hills. Gold, lead, iron, tin—all of them essential to warring nations, lie embedded in the ground, and though these resources are for the most part still undeveloped, labour in the East is cheap and plentiful, and such reserves of material may well be needed before the struggle is over. The Annamese are, it is true, mainly an agricultural people, with little inclination for industrial life, but the Chinese are more adapted to that, and many thousands of them have already swarmed to the comparative safety of their neighbouring country.

The Cambodians are a dark people, busy with their own life in the shadow of that great city whose monuments alone have penetrated the years ; eking out a living by fishing the lake of Toh-le-Sap, that great safety valve of the Mekong, whose waters cover a thousand square miles to a depth of over 40 ft. when the river is in flood, and dries to a mere 10-ft. maximum, and shrinks by some thirty square miles, in the dry early months of the year. This shy, gentle people, who wander over the enormous plains, and settle together in towns not far from vast tracts of jungle, where elephant and rhinoceros, panther, monkeys, honey-bears, myriad birds and virulent insects dwell among an impenetrable mass of trees both large and small ; and who sail their clumsy, raft-like boats through rivers that cross the plains and twist through the jungle, know nothing of war. What do the Annamese feel for the Japanese, who fish their waters and pirate their trade of dried fish and interfere with their sampans and junks that ply the coast ? Or the Tongkingese, stronger and more swarthy off-shoots of the Annamese stock, into whose ports and over whose steep frontiers hundreds of Chinese have dragged themselves, full of tales of warfare and disaster. Nor in Cochin China, where the population, who tend the huge rice-fields, living mostly in their barges and sampans, drawn up beside the banks of the enormous network of canals and rivulets, consists largely, too, of Chinese and Annamese, can the prospect of war with Japan be anticipated as a happy event.

A CHAPTER IN PACIFIC HISTORY

THE STRANGE STORY OF THE NINE CORAL ISLETS : A JAPANESE EXPEDITION SETS OUT TO RECLAIM THE GUANO ISLANDS FROM FRANCE

A SMALL JAPANESE BOAT LYING AT ANCHOR OFF SOUTH DANGER ISLAND DURING THE DISPUTE BETWEEN JAPAN AND FRANCE

WRECKAGE OF A FORMER JAPANESE OCCUPATION : ALL THAT WAS LEFT IN 1933 OF THE OFFICES AND PIER ERECTED BY THE JAPANESE LASA ISLAND PHOSPHATE COMPANY DURING ITS PHOSPHATE-GATHERING OPERATIONS ON SOUTH DANGER ISLAND

A lonely island, inhabited only by hundreds of thousands of sea-birds, in the year 1933 became a bone of contention between Japan and France—and the forerunner of the present claims made by the same Oriental Power on the same (but now, unhappily, decayed) European Power. This island is Tizard, one of a chain of nine coral islands between the Philippines and French Indo-China, to which both Paris and Tokyo laid claim, with China putting in a feeble and belated appeal. None of the islands is inhabited, but the guano deposits laid by the birds are very rich. Japan declared that she claimed the islands in 1917, but the French retorted that in April 1933 she despatched the gunboat *Alerte* to South Danger Island (one of the group) and left a marker there. In August of the same year the Japanese newspaper *Osaka Mainichi* sent an expedition to reinforce the Japanese claims. These pictures form part of a series taken on that occasion. What the upshot of it all was we frankly do not know. We reproduce the pictures here with the object of showing Japan's preoccupation with this significant part of the Pacific as long back as 1933—long before it was ever dreamed that Hitler and the Nazis would be making themselves felt in a spot so far away from Germany itself !

NEW PICTURES FROM ALBANIA :

Where the Greek Army have been Campaigning So Successfully Against the Italians Despite the Severe Weather Handicaps

THROUGH THE SNOW AND ICE OF THE ALBANIAN WINTER, THE GREEK SOLDIERS PLOD UP TO THE FRONT LINE : Pictures from the Albanian theatre of war have not been prolific during the past weeks, probably owing to the very arduous nature of the terrain and to the extremely severe wintry weather amongst the mountainous regions which form the fighting zone. We are therefore pleased to present the pictures reproduced here, which are the latest to be received from the front. The spirit of the Greek troops has been excellent throughout ; some of their exploits—despite the terrible weather and the jumble of mountains in which they have had to manœuvre—have been almost incredible in their boldness

JUST BEFORE THE ATTACK—THE MEN LISTEN TO AN ADDRESS FROM THEIR COMMANDING OFFICER : Zero hour for a local advance is approaching, and the men are listening intently to the instructions being issued. The typical "pudding bowl" type of steel helmet worn by the Greeks is well in evidence in this picture

A GREEK SOLDIER STANDS ON GUARD OVER A CAPTURED ITALIAN TANK : The list of material captured from the Italians is a formidable one. In some cases guns and tanks and lorries have been turned round immediately after capture to serve in operations against their former owners. In the above picture, note that the caterpillar-track of the tank has been stripped off

THE GREEKS RELY A GOOD DEAL ON MULE TRANSPORT : And here is a Greek "cavalryman" with his mount—one of the thousands of sturdy mules employed in the Albanian mountains

A CAMOUFLAGED GREEK GUN IN ACTION IN ALBANIA AFTER HAVING BEEN MAN-HANDLED INTO ITS PRESENT POSITION

GREEK SOLDIERS GIVE THEIR BLANKETS TO KEEP A WOUNDED COMRADE WARM : Wounded whilst on the way up to the line, the casualty has been placed on a stretcher for first-aid treatment. Transport of the wounded in the mountainous regions of Albania is not an easy task

TYPES OF THE GREEK AIRMEN WHO HAVE BEEN PERFORMING PRODIGIES OF VALOUR AGAINST THE ITALIANS : Small as it is, the Greek Air Force has done wonders. The Italians were supposed to be so dashing ; their numbers were so great ; their machines so good ! The Greeks just dashed in and soon established a moral superiority whenever they were able to join combat. Their performance is certainly one of the pleasant surprises of the war. Here a group of Greek airmen are sharing out parcels which have just arrived from home

ROADS GLASSY WITH ICE, AND HILLS COVERED WITH THICK SNOW : A picture which shows the climatic conditions which have prevailed in Albania throughout this very severe winter. Motorised transport could not operate with success in the difficult terrain over which fighting is taking place ; hence the reliance of the Greeks on mule transport

TAKING SUPPLIES UP TO THE FRONT : Through terribly broken country, littered with snow and ice, a Greek commissariat column follows the advanced troops. Some of the transport are Albanian peasant women !

A GREEK SENTRY EXCHANGES NEWS WITH ALBANIAN PEASANTS : One advantage possessed by the Greeks over the Italians has been the friendliness of the Albanian peasantry, through whose territory the advance of our Allies has been taking place. The relations between Greek and Albanian have been most cordial throughout the campaign

AN ITALIAN COLONEL IS DRIVEN OFF BY A GREEK SOLDIER IN A GERMAN MACHINE : Appearing slightly ridiculous in their Alpine head-dress, and very self-conscious in the motor-cycle side-car, an Italian Colonel and his A.D.C. just captured by the Greeks (only two out of very many thousands !) are driven away for questioning at Headquarters. They are seated in a German side-car combination, one of many sold to Greece by Germany before the war

THE TYPE OF BRITISH AIRCRAFT AND THE TYPES OF BRITISH PILOTS WHO HAVE BROUGHT ABOUT THE DOWNFALL OF THE ITALIANS IN THE ALBANIAN CAMPAIGN

The aeroplane which has contributed so largely to the debacle of the Italian *Regia Aeronautica* is, of course, the Bristol Blenheim fighter-bomber. The British pilots are seen in this drawing with Greek aircraftmen and Greek soldiers. Note the special air-filter fitted beneath the engine : this is now standard for all aircraft operating in the Middle East and East

ITALIAN DISASTERS IN THE AIR

The Technical Inferiority of the "Regia Aeronautica"

PROBABLY the soundest beating ever administered to any Air Force befell the unhappy *Regia Aeronautica* on February 28. On that day over Albania a small force of Hawker Hurricane and Gloster Gladiator single-seat fighters of the Middle East Command, R.A.F., shot down twenty-seven Italian aeroplanes and severely damaged nine more without loss to themselves.

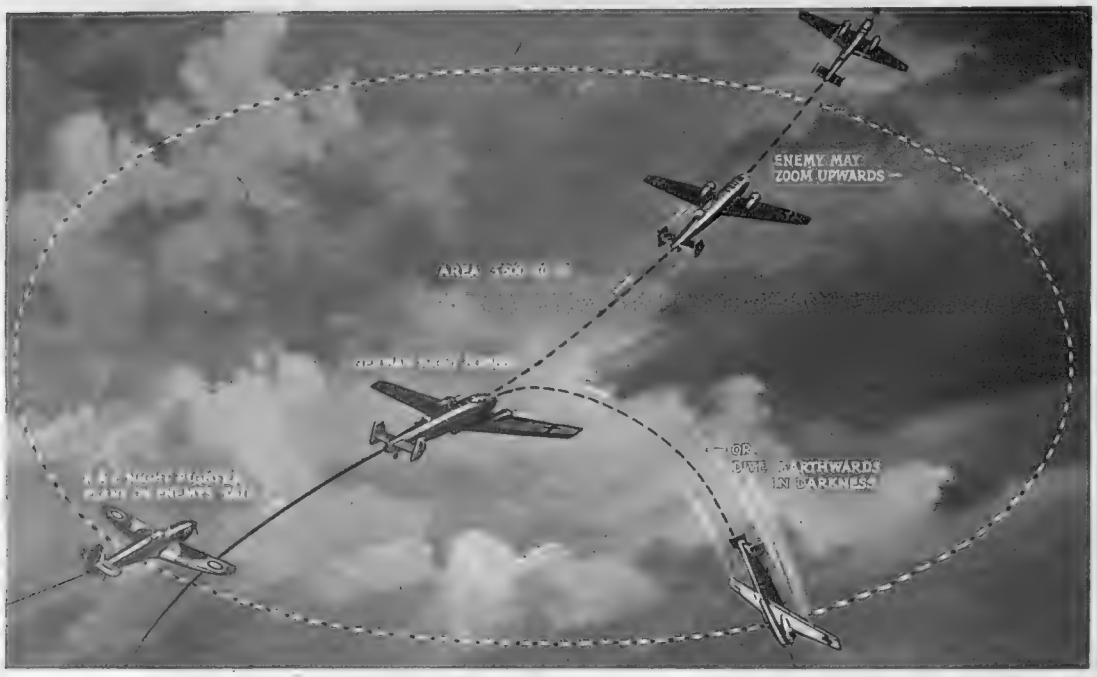
This victory was won when some fifty or more Italian fighters were intercepted when escorting a formation of Italian bombers. The British machines were outnumbered by nearly two to one, but sailed in to the attack and routed the enemy.

What is the reason for this wonderful achievement? No single factor could ever account for such an overwhelming victory. It was undoubtedly a result of British superiority in equipment, in tactics, in training, in experience and in the spirit of the crews. There must also have been an element of surprise.

The Italian aeroplanes shot down included eleven Fiat C.R. 42 biplane fighters; seven Fiat G.50 monoplane fighters; five Cant Z.1007 bis three-motor bombers, and three Savoia Marchetti S.M. 79 three-motor bombers.

The very variety of the equipment shows the desperate straits into which the Italian Air Force has fallen. No Air Staff in its senses would mix types to that extent in one formation were they not forced to do so. The difference in cruising speeds, in range and loads carried, must of necessity reduce the efficiency of the whole unit and make co-operative work difficult. Individually, in the hands of skilled and experienced crews, each of those Italian aeroplanes would be a useful military weapon. In a conglomerated mass formation, flying desperately according to the copy-book and taking little evasive action — inferior tactics which they used over England as well—these Italian machines would prove cold meat to our experienced fighter-pilots.

Details of the encounter have not been published. From what we know of the aeroplanes and the



ONE OF THE PRINCIPAL DIFFICULTIES OF THE NIGHT-FIGHTER IN COMBATING ENEMY BOMBERS

In a recent broadcast some of the problems which our night-fighters have to resolve were graphically indicated by an air-expert. Here is one of them : assuming that a night-fighter has located an enemy bomber in the cloudy sky, he has to "sit on his tail" until he is in the exact position to get in a burst. The speed of the bomber may be 250 m.p.h. ; if he suddenly dives out of the circle at a speed (in the dive) of 400 m.p.h., or if he suddenly turns off into a climb, the fighter-pilot may find it extremely difficult to effect contact again. The bomber may be anywhere within 3,500 square miles within five minutes!

HOW THE R.A.F. HAS ESTABLISHED ITS SUPREMACY OVER THE ITALIANS : ONE BRITISH FIGHTER ATTACKS FIVE, AND BRINGS DOWN THREE

Here is a laconic report published recently by the R.A.F., following on operations in support of the land forces of our ally, Greece : "A fighter-pilot flying alone, sighted five Italian fighters. He immediately engaged the enemy and shot down three of them ; the remaining two broke off the combat." This incident occurred in Albania : it is typical of the spirit which has broken up the *Regia Aeronautica*, not only in Albania but also in North Africa. And here is a "Sphere" artist's conception of the action so laconically reported above. Many explanations have been advanced to account for the sensational débâcle of the once much-vaunted Italian Air Force. Poorness of equipment is certainly one very strong reason for Italian inferiority : but it must also be realised that, up to the outbreak of the present war, the only opponents they have faced have been the Spanish Nationalists and the almost unarmed Abyssinian natives (whom they bombed without opposition and without mercy!)

circumstances of the fight, the battle might be reconstructed thus:

Early in the morning, as soon as the ground-mist has lifted, a formation of Hurricanes, followed by a formation of Gladiators, takes off from one of the advanced landing-fields in Greece. With the sun behind them, they fly in two separate bunches out over Albania, climbing hard to clear the tops of the snow-covered mountains in front of them. At 15,000 ft. the two small formations level off, dancing like dragonflies in the disturbed air which rises above the mountains and gorges.

Suddenly the formation leader sees ahead and below a straggling formation of aircraft flying westwards. In the front is a loose V of stubby, three-motor monoplanes. A little way behind is a rather better formation of slimmer and more elegant three-motor machines. Just above them is an escort of small biplane fighters, with little radial-motored monoplanes on each side.

"D' you see them, boys?" shouts the Flight Lieutenant. "A sitting bag! Down we go!". And out of the sky dive the Hurricanes, dropping on to the unsuspecting Italians out of the sun.

They attack in formation. Each British machine selects an enemy and closes upon him with guns blazing. Before the Italians know what has hit them the Hurricanes are among them, and nearly a dozen fighters and bombers are falling in flames.

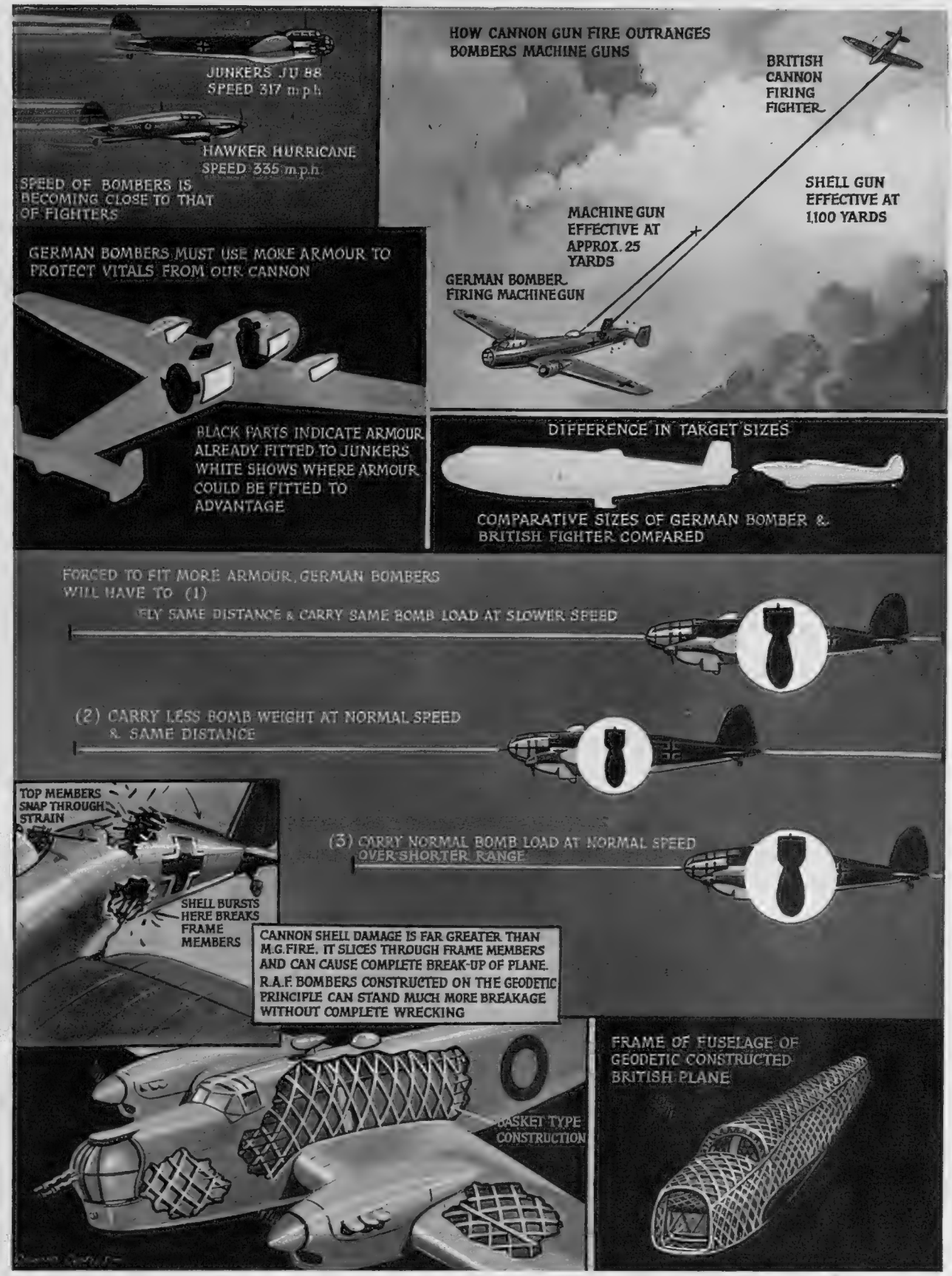
The dive carries the Hurricanes through the enemy formation. Before the enemy has time to pursue the Gladiators are among them, using their terrific powers of manœuvre to out-fly the manœuvrable Fiats. More Italians go spinning down. A moment more and the Hurricanes roar into action again. They have used the speed of their dive to pull up under cover of the attack of the Gladiators, and now they return to pour lead into the straggling bombers.

The two guns of each Italian fighter can make little reply to the eight of each Hurricane and the six of each Gladiator.

In a few minutes the fight is over, and the British fighters, their ammunition exhausted, re-form above the smoking remains of their victims, while the remaining Italians scatter in disorder, nine of them severely damaged. Returning home, the British fighter-pilots enthusiastically compare notes by radio telephone.

Though fighters are gaining so much of the limelight, our bombers in Greece are putting up a fine show. Bristol Blenheims and Vickers-Armstrong Wellingtons, reinforced by the speedy Martin Marylands from the U.S.A., have made a great number of bombing raids by day and by night. They have severely damaged Italian ports and communications and destroyed numerous Italian aeroplanes on their aerodromes. Flying from makeshift aerodromes themselves, flying over country in which a forced landing would mean a certain crash, flying over high mountains in the worst of weather, the British machines have frequently carried on when all the enemy aeroplanes have been grounded.

The units of the Royal Air Force in the Middle East have gained a mastery of the Mediterranean and Ægean air which will not be wrested from them by all that Germany can concentrate in the Balkans



IN THE COMING AIR BATTLES OF THE SPRING, CANNON MAY PLAY A VERY LARGE PART: HERE THE POSITION IS SUMMARISED BY "THE SPHERE'S" AERONAUTICAL ARTIST—*Drawings by Roland Davies*

The speed of the bombers is being stepped-up to such a pitch that it is now approximating that of the fighters. In order to protect their vitals from the cannon which our fighters are now mounting in increasing numbers, the enemy's bombers are making use of armour-plating. But by doing so they are, of necessity, compelled to reduce their bomb-loads. In one of the drawings reproduced above the areas already protected are indicated in black; but there are other areas which, sooner or later, will have to be reinforced. In point of fact, there are three alternatives for the bomber to choose from—same distance, same bomb-load, but less speed; same distance, less load, same speed; shorter distance, same load, same speed. By using cannon-guns, the fighter's range of fire is increased—and, of course, the big bomber is always a better target than the small fighter. One other point—cannon shells inflict far greater damage than machine-gun bullets, and can, in fact, cause the complete break-up of an aircraft. Those of our bombers which are constructed on the geodetic, or "basket-work" principle, can withstand the effect of shell-fire far better than anything the Germans possess

THE PADRE OF "HURRICANE HOUSE" WITH SOME OF THE PILOTS WHO HAVE SO ROUTED THE ITALIAN AIR FORCE

"HURRICANE HOUSE," IN CAIRO, IS OPENED BY THE C.-IN-C.: This new "rest-house" was inaugurated recently by Air Chief Marshal Sir Arthur Longmore. It is intended to afford sergeant-pilots, observers and air gunners a month's rest after long periods of duty flying in the desert. What with the heat and the sandstorms, and the poor visibility conditions which often prevail, flying in the desert is by no means easy or pleasurable. With Sir Arthur in the above picture is Lady Lampson, wife of the British Ambassador in Egypt, and some of the Egyptian visitors at the inauguration

A FIGURE OF PRIME IMPORTANCE IN THE FAR EAST—AIR CHIEF-MARSHAL SIR ROBERT BROOKE-POPHAM : Now our Commander-in-Chief in that very vital area, the Far East, "Brookham" was recalled from his post as Governor of Kenya to take over duties at the Air Ministry, where this picture was taken before he left to take up his new and important duties. He is now in charge of our defensive plans in the Pacific and Far East. His past record of service to this country is an earnest of what we may expect from him in his present job, which is one of the key-posts of Empire

NIGHT RAIDING and AERODROME SITTING—AIR COMMENTARY by C. G. GREY

(Founder of "The Aeroplane")

NIGHT RAIDERS AGAIN.—Naturally, as we come nearer to the threatened "Blitz"—no matter who "blitzes" first—people are becoming more and more interested in the night-raider (defeat thereof) problem. Interesting light on the subject comes even from the Directorate of Public Relations at the Air Ministry, whose motto seems to be "Language was given us to conceal our thoughts—if any."

Now they have let out a piece spoken, in an official interview, I suppose, by a very young night-flying pilot, who seems to be working with ordinary eyesight.

A quaint thing, and very consoling, is the way in which people always think that their own job is the best. This lad says, of night-flying: "It was rather terrifying at first, but now I would not change my job. It is a grand feeling to be up there at night. When it is moonlight you can see almost everything on the ground, and it is not too difficult to spot a Hun."

Which reminds me that Major Raleigh (killed on the beach near Dunkirk in 1914—not 1940) told me, when the Royal Flying Corps was doing its first experimental night-flying in 1913 over Salisbury Plain, that on a clear starlight, not moonlight, night he could see every house and tree and hedge and road and river and railway. But that was sitting out in the open in the nose of a Maurice Farman, and not trying to see through layers of glass and celluloid, or Perspex, multiplied till it is bullet-proof.

That seems to be one of the worries of the night-fighters. This lad says: "On dark nights it 's a different matter, and you have to rely principally on searchlights. Some fellows are better than others at seeing in the dark. Diet helps to develop one's power to see in the darkness, and we also carry out special training in the daytime."

I do wish that official people would drop that phrase "carry out" when plain "do" does. The only things that are "carried out" are corpses and drunks. Anyhow, they do special training in daytime—presumably catching bluebottles in a dark room. Vitamin A is, I believe, the special dope for night-sight. If this sort of thing goes on, what with vitaminised bread and vitaminised chocolate and all the rest, either vitamins must be rationed or they will stop breeding, and we shall have to start a close season for vitamins.

Months ago a member of a bomber crew, whose eyes had become used to the dark after some eight hours' flying to Germany and back, was flying to his station in England from the coast when he saw a German bomber flying across him with one of our fighters right on its tail. He and the rest sat and watched for the unusual sight of a bomber being blown to bits by a fighter at night.

To their amazement and disappointment, the fighter flew right along the back of the bomber, only a few feet above it, went on ahead, and never did a thing, and the Germans never knew what a close call they had had. Evidently neither the fighter-pilot nor the German crew had acquired proper night-sight. Since then the selection of the night-pilots and their training and diet have all been vastly improved, and we are getting nearer to the day to which Air Marshal Sir Philip Joubert is looking forward, when enemy losses in the dark will be *proportionately* as high as in daylight.

In fact, we may be much nearer than appears on paper, for although we know how many were shot down, we never know how many crashed and killed their crews on landing across the Channel or were lost at sea with all hands. Also, we have rightly been told little about new devices for our night-fighters, but still less about new devices for anti-aircraft guns, which, if you notice, have been bringing down more night raiders than in the later months of last year, when there were more of them than in the past few weeks. Another notable remark in this report is: "Combat (on dark nights) is not easy unless the enemy is held by searchlights, because the rear gunner (in the enemy machine) can open his vision panel and have a crack at you, while you have to keep your screen closed." Air, even at high speeds, can be deflected in odd ways. There *was* a bomber some five or six years ago in which the bomb-aimer looked straight forward into the open air without feeling any draught.

Aerodrome Sitting.—Another of this gallant lad's exploits was an attack on a Dornier which was about to land on an aerodrome in France. He shot it down at 2,000 ft. and it fell just short of its own flare-path. Which seems like a trick which was popular in the last war, when our people used to sit about over enemy aerodromes and wait for the Germans to come home. A night-flying pilot of those days recently called it "aerodrome sitting"—a hazardous occupation, but rewarding.

Incidentally, the report says that one of his engines cut out and he came home across the Channel on one engine on a dark, moonless night. We have not heard much about twin-engine night-fighters, beyond an occasional reference to Blenheims. That young officer had been with a night-fighter squadron since war began. He deserved his D.F.C.

His remark about not wanting to change his job recalls how the day-fighters in the last Anglo-German war used to admire the courage of the night-bombers, who, in single-motor pusher biplanes, used to take off in the dark, cruise around (without radio in those days) hunting for their targets, and, as often as not, landed in ground fog, when they could see the flare-path from above, but lost it when they sank into the fog, and had to "feel for the ground."

The night-bombers equally admired the daylight bombers and fighters, who, as they said, were there for everybody to see and shoot at, while on their own job they were invisible except for the odd searchlight. I remember when that stout-hearted Norwegian pilot, Tryggve Gran, who became a Major, R.F.C., had his radiator shot through so that it lost all its water, and came home about twenty miles with his old six-cylinder Beardmore clanking like a threshing machine. He remarked: "I never knew that molten white metal was such a good lubricant."

Talking about feeling for the ground when landing brings up one of the best stories which have come out of the Air Ministry. An R.A.F. doctor was called to see a patient who, the official report said, had fallen twenty feet from a lorry. "But you can't fall twenty feet from a lorry!" objected the doctor. "You could from this one," the man insisted. He explained that it was being dragged across a field by a runaway kite balloon, and added: "When it got up to twenty feet I baled out." Baling-out parachuteless, even from twenty feet, is no joke.

The Brick-droppers.—One of the highest moral characteristics of Government Departments is that they let not their right hand know what their left hand doeth. The Air Ministry, or one part of it, anyhow, has been smitten by the slogan "Grow more food." Captain Harold Balfour, M.C., our sportsman-like Parliamentary Under-Secretary of State for Air, announced lately that a Technical Adviser on Horticulture was to be appointed to encourage stations to plan intensive cultivation of all available land.

On top of that our Air Ministry communiqué tells us that "airmen-farmers at a school of Army Co-operation" have grown vegetables and pigs so well that they not only supply the station, but make a substantial profit. It adds that this is done "in a most effective way and without any interference with their normal duties." Fine! I am all in favour of stations supplying "roast pork and two veg." for themselves and others.

And now I suggest that the Air Ministry should appoint a Technical Adviser on Agriculture to encourage stations to plan intensive production of cattle-feed in a most effective way, without any interference with their normal duties.

How many more times has the Lands Branch of Bricks and Buildings got to be told that each and every acre of each and every aerodrome in Great Britain and Northern Ireland ought to be producing one ton each year of first-class cattle-feed? I do not want to bore my readers with more dissertations on the value of dried grass, and the way it is wasted, because the Lands Branch insists on letting it lie and rot every time it is cut, instead of lifting it and drying it. But there are those tens of thousands, possibly hundreds of thousands, of tons of good feed being thrown away because of sheer departmental obstinacy and ignorance.

Sywell Aerodrome, Northampton, a privately-owned concern, has proved for four years or more that the scheme works. One at least of the world's leading authorities on grass-growing approves. All these good lads at the stations grow pork and beans by the sweat of their brows in their own time. And these brick-mongers are allowed by the Air Council and the Houses of Parliament to waste the produce of all those green acres from which cattle and sheep and corn have been evicted so that aeroplanes can run about on them. Don't we deserve to starve? And is there not *one* agricultural M.P. who dares to get up and ask a few questions from Sir Archibald Sinclair or Mr. Hudson or Lord Woolton or some of the others who are concerned in this war of the Ministries, which seems so much more important than the Anglo-German War?

DESCENDING WITH THE AID OF TWO PARACHUTES : Two United States Marines are here seen undergoing training in the new technique of parachute jumping. One of the Marines—under the impression that things were not going well—had opened his (second) emergency 'chute after the proper one had failed to open immediately. The latter eventually *did* open, however, and the trainee thus had the novel experience of controlling both parachutes during his descent—probably not an easy job! Another marine, supported by only one parachute, is also seen in the bottom left of the picture, making his descent in the more usual manner

THE WONDERFUL HELICOPTER DESIGNED, BUILT AND FLOWN BY THE RUSSO-AMERICAN AERONAUTICAL DESIGNER, M. IGOR SIKORSKY

In the last war M. Sikorsky built and flew huge aircraft for the Russian Army. After the Revolution he left the country but carried on his experiments elsewhere, eventually settling in the United States, where he designed a number of highly successful aircraft. Now M. Sikorsky has been experimenting with helicopters and has devised the wonderful machine pictured above. It has no fabric to cover its skeleton-form; it does not need any. But it has actually been flown at speeds varying from 0 m.p.h. up to 50 m.p.h. in a forward direction, and at 20 m.p.h. sideways *and backwards*. It can fly forwards, sideways, backwards—*or hover at any given point*: it can go up vertically and descend vertically. It has no wings, but has a 90-h.p. motor. It has a main rotor, and two smaller auxiliary rotors at the rear. To demonstrate its manœuvrability M. Sikorsky is here hovering a few feet above the ground to take up a suit-case!

Folks are Queer.—People are always inconsistent. The late John Lord, one of the founders of A. V. Roe and Co., Ltd., and a leading exponent of Lancashire folk-lore, had a story of two aged Lancashire cronies sitting by the fire reading their papers. One laid down his paper and remarked, "Fowks is queer!" "Aye!" said his friend. "Most fowks is queer, 'septin' me and thee. An' tha knows, *tha's* a bit queer sometimes."

Take, for example, all this popular enthusiasm for the R.A.F. and the hundreds of thousands of pounds, possibly millions, which have been raised by voluntary contributions for Spitfire funds and Hurricane funds—let alone all the perfectly good aluminium pots and pans contributed by excited housewives to be squashed flat in answer to Lord Beaverbrook's passionate appeal.

Consider that if each contributor had given a million pounds, instead of whatever he or she did, we should not have got one more aeroplane, because our factories were, and are, already turning out every aeroplane which the labour and material to be had could make. And what have all these enthusiasts done to show that they "pity poor fighting men broke in our wars"?

Practical Benevolence.—Have you ever heard of the R.A.F. Benevolent Fund? It was started in the last war. Mrs. Sueter (now Lady Sueter, wife of Admiral Sir Murray Sueter, M.P., then a Commodore R.N. and Chief of the Air Department, Admiralty) started the Royal Naval Air Service Comforts Fund. A similar fund was started for the Royal Flying Corps. When the R.A.F. came into being they amalgamated and became the Flying Services Fund. After the war, as there was much money in hand and no casualties to mention, this was turned into the R.A.F. Benevolent Fund. Each year some thousands of pounds were handed to it from the proceeds of the R.A.F. Display at Hendon. Officers and airmen who had fallen on hard times were helped. Widows and orphans were supported. A fine school was started for the children of dead or disabled airmen.

Of course, Lord Wakefield helped generously, and so did a few other people. I seem to remember that the aircraft trade used to contribute, but the trade was not wealthy in those thin days, when Sir Samuel Hoare, as Air Minister, and Sir Hugh Trenchard (now Viscount), as Chief of the Air Staff, were laying the foundations of our present air power on a paltry pittance called the Air Vote in Parliament.

To-day people, in the whirl of war, seem to be ignorant of the fact that the people who fly the Spitfires and Hurricanes, if they are smashed up, only get a pauper's pay from the Government, and that if they are killed, the miserable pensions allowed to widows of airmen and junior officers are barely enough to allow them to starve respectably.

People quote pridefully Mr. Churchill's aphorism, "Never in the history of human conflict have so many owed so much to so few." Yes. And they go on owing it. They don't pay up to support the widows and orphans of those who died.

Lord Trenchard, who never broadcast before, made a radio appeal for the R.A.F. Benevolent Fund because, he said, he "considered it a duty and an honour." How many rich men in the aircraft industry and all the auxiliary and ancillary industries which are waxing fat—in spite of 100 per cent. E.P.T.—on aircraft orders have considered it a duty and an honour to hand over a few hundreds or a few thousands to the Benevolent Fund? I don't know. I merely ask rhetorically.

Mr. Alexander Duckham, always energetic and an enthusiast, and for many years a fervent believer in air power, has lately taken on himself the burden of prising loose some of the Fighter Fund and other aircraft profits for the benefit of the Benevolent Fund. In a forceful letter on the subject, he quotes: "Thou dost not bite so nigh as benefits forgot." That ought to hit some people where they live.

Lord Nuffield, of course, has come down handsomely for the motor trade; so have the Ford people. Oil has been the most generous as an industry. Tobacco and beer look promising. But, seemingly, industry as a whole is looking for a lead from the aircraft constructors, the Approved Designing Firms, who are known to their friends as The Family and to their enemies as The Ring.

Shareholders' Money.—Admittedly their position is difficult. Many boards object to paying out shareholders' money to charity. But the Benevolent Fund is not a charity: it is a bonus or an honorarium to the servants and saviours of the Empire, who have far surpassed mere duty in protecting the businesses, premises, stocks, *and* dividends, of the shareholders. It is payment, on a small scale, for services rendered to those shareholders in preserving their assets.

The members of the Society of British Aircraft Constructors treated the Royal Aeronautical Society to magnificent premises in Hamilton Place a few years ago. Surely the S.B.A.C., either as a Society or individually, can find as much, and a good bit more, for the Benevolent Fund after all that the R.A.F. have done for them. And if they set a good example, all other industries will follow.

Here are a few figures to help the idea. Before the war the assured income of the Fund was only £11,000 a year. Its expenditure *in peacetime* was £20,000. The Fund needs an invested capital of a million and more, to bring in £50,000 a year to enable it to deal with after-war burdens.

Lord Nuffield has given £250,000, and about £60,000 has come from others. So £700,000 is still needed. The least that the board of every firm which has to do with aircraft orders can do is to hand over a goodly proportion of its profits to the Fund, for without the R.A.F. it would not have any profits (*a*) because it would have no aircraft orders out of which to make profits; and (*b*) because it would long ago have been bombed out of all possibility of making profits out of anything else. Ponder on those thoughts, ye manufacturers.

THE FILTER WHICH MADE FLYING IN THE DESERT PRACTICABLE: Mr. Cecil Gordon Vokes, the filter designer, helped our Army in the Western Desert by his work in England. By working night and day he helped to defeat that dangerous enemy, sand, which, by choking engines operating in the desert heat and amongst deadly sandstorms, so shortens the duration of aircraft as to be a great menace to an advancing army, which must adhere to schedule. Filters to protect the mechanism against sand are now a feature of all aircraft flying in Libya, as well as of lorries and other mechanical transport

A Postscript on Seadromes.—Mr. Frank C. Bowen's suggestion that one of the worst troubles about seadromes is that the length of cable needed to anchor one would be so great that its own weight would break it is interesting. Mr. Creed believes that a mile and a half of cable would be the most needed. He says that wire hawser, tapered downwards, with more strands at the top, would do the job.

The idea strikes me that a fairly certain way of getting over the trouble would be to fix buoys to the cable at intervals as it was paid out from the seadrome. The anchor and chain to lie on the bottom would be of a weight proper to hold the seadrome against wind and current, but the whole weight of the cable would be carried by the buoys. Thus the strength of the hawser need only be enough to take the pull of wind and water, plus a reasonable factor of safety.

On March 2 the *Sunday Chronicle*, one of the most widely-read newspapers in the great industrial north, paid me the compliment of reproducing from THE SPHERE of February 22 the excellent drawing of Mr. Creed's scheme for a seadrome, as well as my scheme for an air-patrolled steamship lane across the Atlantic made by overlapping circles of aircraft operating from seadromes anchored at intervals between Ireland and Newfoundland. With the pictures was a description based on the article in THE SPHERE.

That is all to the good, for the industrial areas in the north are very much concerned with and for the safety of our shipping, which brings food and raw material to those areas. I hope that this added publicity will help to put pressure on those who have the say-so on seadrome experiments. Evidently in haste for the press, the *Sunday Chronicle*, although it mentioned Mr. Armstrong, the American advocate of seadromes some years ago, omitted at the time any acknowledgment to Mr. Creed or to THE SPHERE or to the humble writer of this article. I have much pleasure in making that acknowledgment on behalf of the *Sunday Chronicle*.

HOW THE LONG-RANGE AIRCRAFT OF GERMANY, OPERATING OUT IN THE ATLANTIC FROM BASES IN OCCUPIED FRANCE, COLLABORATE WITH GERMAN OCEAN-GOING SUBMARINES WHEN OPERATING AGAINST BRITISH SHIPPING: This collaboration has hitherto proved very successful, and many a merchantman, or convoy, has been attacked by U-boat solely owing to these methods. Especially in the rough weather of winter, the range of vision of a submarine is restricted: by erecting a wireless aerial on its collapsible mast, messages can be received from the patrolling aircraft giving warning of the arrival of a possible prey. With its great mobility of action, its long range, and its added height, the aircraft can cover an immensely wider area than the submarine could ever hope to do

HOW AIRCRAFT and SUBMARINE CO-OPERATE

The Methods which the Germans have been Adopting in Their Attacks on British Shipping in the Atlantic

THERE is no doubt that a considerable measure of the success of the Axis campaign against merchant shipping in the Atlantic is due to the careful co-operation between their submarines and long-distance aircraft—co-operation which has been regarded as ideal in theory for many years past but which was impossible of attainment until recent developments in aircraft.

One of the greatest handicaps to the submarine in war against commerce is her short range of vision. Normally, the only point of vantage is from the top of the conning-tower, which is not a great height above the water, and the distance of the horizon depends upon the height of the observer. Frequently, of course, they can see the smoke of a convoy well over the horizon and make for it, but every precaution is taken to reduce the smoke made, and the submarine operating by herself will often let a convoy pass only a few miles away. During the late war, some U-boats tried to increase their range of vision by rigging a small crow's-nest on a light mast, but it was not satisfactory, and if the boat were rolling to any extent it was quite likely that the weight of a single look-out would carry the mast over the side.

On the other hand, a big flying-boat or seaplane, both of which now have a very big radius of action, can secure a colossal field of vision and can detect a convoy or single ship many miles away. If one is seen they may feel confident that it is Allied, for there are no Axis ships at sea except the few raiders of whose movements their submarines and aircraft are kept fully informed.

Once the plane has spotted the intended prey it is easy to send the submarine a short code message which will give the necessary position or bearing. The former would probably be in the form of a number, the chart of the whole area round about being divided into numbered squares, while the latter would be a pre-arranged word which would not give away the position of the U-boat. There is no difficulty in a submarine taking in wireless messages, either by a special aerial rigged on a hinging mast or, as is more usual, by using the stout "jumping wires" which are designed to carry nets and other obstructions clear of the conning-tower and periscopes. This receiving gear is in constant use and does not incur any risk, but the transmitting gear, although it is invariably

A GERMAN ATTACKER OF BRITISH CONVOYS MEETS ITS DOOM IN PORTUGAL

A large four-engined bomber—of the type which has been preying on British and Allied shipping in the western approaches to Britain—lost its way in a fog recently and crashed at Moura in Southern Portugal, near the Spanish frontier. The crew were not in uniform and, after an unsuccessful attempt to fire their machine, made off in the direction of Spain. The military authorities, however, ordered their arrest. On this aircraft, markings on the tail indicated that it had taken part in operations at Narvik and over Britain

AWAY ON THE HORIZON APPEARS THE CONVOY: Closely watched by the enemy aircraft, the deeply laden ships sail on even whilst the enemy plane is communicating with the submarine some distance away. Soon the U-boat working in conjunction with the aircraft will be hurrying to the scene to bag what victims she can

d in all submarines, is only used with greatest of care, for their study of history of the late war showed the mans how often U-boats had been royed through giving away their tion by sending out too many wireless sages.

On the other hand, it is of minor import- if a British ship takes the bearing of eaplane or flying-boat sending out a sage, for her speed is so great that by time it is possible to act upon it she will long way away. She can therefore her information with the minimum of and can also either transmit news of combined operations to the shore tions in Germany or the occupied terri- or, if there is no such haste for it, can it back with her when she returns to base. That is probably why the German less news so often publishes very prompt mation concerning happenings at sea, it does not make their publication any truthful.

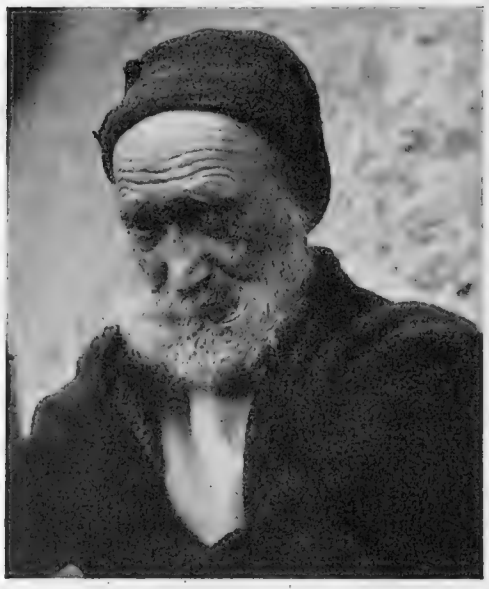
The co-operation between enemy aircraft submarines also permits the headquarters lore to keep in very much closer touch with the latter when they are on service. In the late war, and in the early days of this one, the submarine which left port was, unless she risked using her wireless, completely out of touch until she returned again, but with the long-distance aircraft co-operating, her movements can be watched very much more carefully, and if she disappears the enemy may not know the manner in which she has been sunk, but they will at least know the approximate time, and the position in which she would be. That naturally prevents several U-boats walking into the same trap and is one more difficulty added to the Navy's task of exterminating them.

The Navy is quite accustomed to having its difficulties increased as the enemy gets more wary, and may be trusted to deal with this combination effectively, if it has not already done so. Naturally, the Admiralty will not announce the fact unless it is perfectly certain that the enemy have discovered all about it; it is not sufficient to be morally certain, for that might permit invaluable information to get across to Germany.

——AND WITHIN THE WIRELESS CABIN ON BOARD SHIP: There is always the possibility, of course, that the wireless operator on the British vessel may intercept and be able to decipher the messages passing from enemy aircraft to submarine. In which case the ship's captain will endeavour to take necessary precautions against the coming attack by the submarine

WHAT IS MACEDONIA?

It is a Traditional "Cockpit of War" Covering Portions of Three Balkan Countries; and its Inhabitants have been Warriors and Conspirators for Scores of years



ONCE A MEMBER OF THE DESPERATE "COMMITAJIS": To-day this man is an old hermit living near the famous Rila Monastery, now reported to be German Headquarters in Bulgaria. He was once a famous fighter for freedom, and for years lived a "Robin Hood" sort of existence

"MACEDONIA" IS A LOOSELY-DEFINED TERRITORY WHICH EXTENDS OVER PORTIONS OF GREECE, BULGARIA AN YUGOSLAVIA: During the latter part of the nineteenth century, this area was the scene of frequent revolts and of struggles fo preponderance. It is here that the roving bands of desperate "Commitajis" operated, with their conspiracies, feuds and violence. I a Europe which has become comparatively civilised with the passage of years, this territory has for long been a wild, lawless region peopled with wild, lawless fighting men; it is one of the traditional European "Cockpits of War"

THE MOST IMPORTANT MAN IN TOWN: He is the Mayor, and his township is Galicnik, a secluded village high up in the mountains of which a good view is given in the top right-hand picture. The local women hold the Mayor in very high respect: their own menfolk are often away from the village for long periods on end, and frequently he is the only male resident left!

A TYPICAL MACEDONIAN TOWN OF SOUTHERN YUGOSLAVIA: The once-famous Serbian town o Monastir is to-day known as Bitolj. A great battle was fought here in the Balkan Wars of 1912. Here is a scene in one of the streets of this typical Macedonian centre

A BASTION AGAINST SUDDEN ATTACK IN THE MACEDONIAN HIGHLANDS: This is the defensive wall which surrounds the town of Pocitelj: it is now partly in ruins. Once a town of importance in the Balkans, Pocitelj is now a village which is fast falling into decay

MACEDONIA and its PEOPLE

(By J. E. Pryde-Hughes)

THE ancient land of Macedonia lies across three more modern countries: Yugoslavia, Bulgaria and Greece. Each of these countries claims Macedonia as its own, but neither in speech nor race can anyone maintain the claim, for the land of classic history contains not so much the elements of the days of Alexander, the Celts, Greeks and Romans, as an old Slav base with a mixture of Albanian, Greek, Vlachs and other peoples, very definitely influenced by Byzantine and Turkish overlordship and cultures. It is a primitive region, inhabited by shortish but lean, hardy people living mainly on bread and cheese, the milk of the buffalo, and green peppers.

The population is little over two and a half millions, of whom over one and a half millions are Christians, the remainder, except for about one hundred thousand Jews, are Muslims—that is, less than a million. Exploited and oppressed for centuries under various conquering inrushes, the Macedonian is a quick, but complicated creature, revealing in his appearance Slav origins with his intake of Eastern blood and the effects of malaria, especially in the valleys, where the waters, rushing down bare, deforested ranges, form swamps. Road communications and systematic efforts to extirpate the prevalent diseases have had some beneficial results, but there is still a very great deal to be done.

Life in the hill villages of Macedonia epitomises the conditions and circumstances of the land. Some of these villages are almost entirely cut off from the outer world for the greater part of the year. The customs and mode of living of thousands of years ago are vital in the lives of the peasantry, and even in towns, Skoplyé, for example, wooden ploughs, and many other primitive tools, including instrument

THE NATIONAL DRESS OF MACEDONIA, AS WORN BY A WOMAN OF MONASTIR (OR, AS IT IS KNOWN TO-DAY, BITOLJ): This dress is of filigree handwork of great richness: such a specimen as that shown above would to-day cost over £100 sterling

A VILLAGE, TYPICAL OF SO MANY, HIDDEN AWAY IN THE MACEDONIAN MOUNTAINS: This is the village of Galicnik: it lies in a very secluded spot high up in the mountains. Here the old customs and habits are still kept up, and life generally follows the models of years ago

IN THE BALKANS, MUHAMMADANISM IS STILL A VITAL FORCE: Many of the women still retain the old customs, and during visits to "town" retain their veils

for striking fire, are on sale in the market. A man selects his wife for working ability and stamina, and her duty is to serve her man, bear children and labour at all the hardest tasks of the home. She will be responsible for the production of three-quarters of what the family consumes, and this includes spinning and the weaving of cloth for herself, children and husband. Furthermore, she embroiders the clothing in the traditional fashion.

Nearly 3,000 ft. up in the barren hills is the typical Macedonian village of Galicnik, clinging like a swallow's nest to the steeply rising crags, and only narrow mule-tracks establish connection with the valley and with the world. Owing to this seclusion, Galicnik has retained, fresh and natural, centuries-old customs, and especially the genuine traditional dress. These ways and customs are typical of many other such places, going back over half a thousand years, to the Turkish conquest of the Serbian Empire. To avoid the marauding Muslim soldiery, families fled to the mountains and there established themselves.

These little townships are unable to support the male workers, who go out into the world to earn money. The craftsmen, especially stone-cutters and masons, are to be found in all European capitals, and many go across the Atlantic. Once a year most of them return to their native village, even if they have sojourned thousands of miles away: they return for "Petrovdan," which means "The Day of Petrov." For Petrovdan is wedding day in Galicnik, as elsewhere. Some intend to marry, some want to attend the wedding of a good friend or relative, and some return just for the reason of being home again.

Lake Ochrid, in Southern Serbia and at the foot of the Black Mountains, has an almost international role since it serves to divide many different peoples: Albanians, Serbians, Macedonians and Montenegrins. At the southern end of the lake stands the Abbey of Sveti Naum, where, at the annual festival, ten thousand and more pilgrims assemble, bringing offerings to holy Naum. Not only the orthodox Christians, but also the Muslims honour this festival, and amongst the pilgrims are veiled women, and also many Muslim gypsies who bring live sacrifices, while the women dance in honour of the saints.

The soil in the Balkans is a great problem, especially in the mountains. Seed the peasant has, but he must calculate carefully where he will sow it. Around him and about are rock, mountain and more rock. In a hollow between the rocks a corner protected from the wind has filled up with soil. There are further pockets of soil here and there. For weeks and months the peasants collect the soil in baskets and sacks and bring it to a favoured spot, here to make a small field where the grains may strike and mature. These pocket fields in the Macedonian hill-lands look like small oases in an unending desert of stones, and until the cornstalks have attained a certain height the field must be watered every day or the whole sowing would be dried out in the glowing heat.

PEASANT WOMEN OF SOUTHERN SERBIA ATTENDING THE ANNUAL FESTIVAL AT SVETI NAUM, GARBED IN THEIR BEST FINERY

The World of Books—By Vernon Fane

NOVELS OF MODERN TIMES

Hemingway and the "Preacher-Poet"; The Lady in the Fur Coat; Bernard Newman's "Papa Pontivy"

THE title of the first full-length novel which Ernest Hemingway has published for ten years, FOR WHOM THE BELL TOLLS (Cape. 9s.), is a quotation from John Donne. The book has caused a sensation in America, where, according to the bookselling journals, it has "busted all records."

The latest information is that it has already sold over four hundred thousand copies, and is moving at the rate of fifty thousand a week. The movie rights have been sold at the highest price ever paid for a novel: that is, 100,000 dollars, plus 10 cents for every copy of the book sold up to 500,000. It has had other strange effects. It has, in the words of *Time*, "made Preacher-Poet Donne a best-seller. U.S. customers could not buy a volume of Donne's works for love nor money. The book stores had sold out completely. Consternated publishers, having dusted off and sold the 1,000-odd copies of Donne they usually keep on the top shelf, confess that Best-Seller Donne was O.P. (Trade patter for 'out of print'). They saw nothing funny about it. 'It is,' said Bennett Cerf, publisher of Random House's 3 dollar 50 edition of Donne, 'a distressing story.'" The rumour that Hollywood has cabled John Donne a handsome offer for the movie rights of *his* story is, so far, unconfirmed.

From these interesting tit-bits of ballyhoolery, we pass to the consideration of Mr. Ernest Hemingway, who, since the publication of *The Sun also Rises*, nineteen years ago, has probably exercised more influence on contemporary English fiction than any other living writer. In the words of an American critic, "With the exception of James Joyce, he has, more than any other contemporary, influenced the material and tone of English prose." The critic goes on to say, "His style, so terse and clean, yet vivid and rich, has been imitated by many, but matched by none. His dialogue is the envy of all."

The critic has a fairly sound basis for his enthusiasm, even though, like most generalisations, it is open to a broad range of criticism. Neither Hemingway nor any other writer should be called to account for his imitators, nor would it be just that the sins of the school should be visited upon the master. Certainly it is not because of these things that *For Whom the Bell Tolls* has swept into a record-busting success.

The millions who are going to read this book will not be much concerned with the "material and tone of English prose." I suspect that they will go for it because some of the love-scenes in it are as frank and rich in implication as anything which got the late D. H. Lawrence into trouble. I have no doubt, also, that they will be titillated by the frequent obscenities. Mr. Hemingway gets over a slight difficulty in this respect by the ingenious use of the word "obscenity" in the following manner:—

"What about the Bridge?"

"That we blow up an obscene bridge and then have to obscenely well obscenity ourselves off out of these mountains."

Mr. Hemingway's characters are tough, and occasionally he has to use the word "unprintable" for "obscenity." The book is full of it.

It is a story of the Spanish Civil War. Robert Jordan, a member of the International Brigade, is sent through the enemy lines to join a band of guerillas in the mountains, and with their help to dynamite a bridge, thus cutting a vital line of communication for the enemy in the forthcoming offensive. Jordan is a typical Hemingway hero, as tough and as brave as they make 'em, and able to take enough strong liquor on any occasion to see the ordinary man under the table. True to Hemingway tradition, he has a special taste for Pernod, which, after a swig or two, induces visions of Parisian cafes and the life of the Left Bank.

He also falls in love with a young girl whom he meets in the guerilla camp, clean, bronzed, loose-limbed as a young foal. From the first moment he sees her he gets a choking feeling in his throat. The love-scenes between these two reveal all Hemingway's terse strength in creating atmosphere through dialogue. Everyone who is not squeamish about these things will recognise them to be beautiful and moving passages.

The other characters in this book are masterpieces of delineation through objective dialogue. Anselmo, the old man without fear; Pilar, the battling Amazon of the clan; Pablo, the killer who had "gone bad," lost courage and grown fat and cowardly; El Sordo, who was deaf, doomed and knew it; and Agustin, who "spoke so obscenely, coupling an obscenity to every noun as an adjective, using the same obscenity as a verb, that Robert Jordan wondered if he could speak a straight sentence."

It is a desperate tale of desperate men and women. The bridge is destroyed, but in escaping, Jordan is left behind with a broken leg. These men and women who have been his companions in the heroic enterprise, those of them who survived, have to leave him on the mountain-side with a sub-machine-gun, waiting for inevitable death at the hands of the enemy. They must leave him that they should fight on, and with them goes his beloved Maria.

Hemingway has not gone to that particular poem of Donne's for his title for any other reason but that his tragedy has universal meaning. In his writing, he plays incessantly upon the notes of toughness and tenderness, achieving all the effects he knows so well how to produce. But he has also invested his story with a tragic significance, which springs from a deep pity and understanding.

Probably no writer in English knows or understands Spain and the Spanish people better than Ernest Hemingway. Spain is in his blood. "France is always strange and different, but in Spain you feel as if you were born there." In *A Death in the Afternoon* he has written what is probably the best book on bull-fighting in the language, and some of the best of his short stories have been on Spanish themes.

In this book there are some unforgettable scenes, but the one which I think will remain in the minds of most readers will be the description by the woman Pilar of the massacre of the mayor, priest and local Fascisti by the peasants, led by Pablo, of the small village from which they came. That, and the description of the shooting of the civil guard, are really terrifying. For sheer descriptive power, also, the actual episode of the blowing up of the bridge would be difficult to equal in fiction. In other words, best-seller or not, this is a magnificent novel.

A STARLET IN THE ASCENDANCY: Glynis Johns, a sixteen-year-old girl who is embarking on the biggest part of her film career in the Canadian epic, *49th Parallel*, now in production at Denham Studios. She is taking the role recently vacated by Elisabeth Bergner, that of a Hutterite girl who encounters four Nazi U-boat men on the vast Canadian wheat-fields. The Nazis, whose craft has been blown up in the Hudson Straits, are making their way across Canada to escape over the line of demarcation dividing Canada from the United States—the 49th Parallel. The Hutterites are a community of religious Germans who settled in the wheat-producing areas of Canada during the last century. Miss Johns is seen with Leslie Howard, who is also starring in the film

THEIR GOOD TURN FOR THE SOLDIERS: E. Dunsby and G. Kemp, two Farmoor, Oxford, Boy Scouts, who go round the village each week collecting salvage which they load on to their home-made truck and sell, using the proceeds to buy gifts to send to serving Farmoor soldiers

A WILLING HORSE: For many years Peggy has worked with Fred Evans, a greengrocer, drawing his cart round the streets of Wembley. Now the master has been called up. So through the streets goes Peggy begging for a job. Fred has now joined his Army unit and Peggy waits for offers

After all this, THE LADY IN THE FUR COAT, by Frank Tilsley (Collins. 7s. 6d.), is light fare. Which is no more than Mr. Tilsley would want it to be.

In a snow-storm in the winter of 1939, a young farmer was going north by train. In his compartment were some members of a theatrical company, and among them a Lady in a fur coat.

For reasons which the author makes ingeniously plausible, young Tom, the farmer, and Greta, the beautiful young actress, find themselves marooned in the waiting-room of a deserted station. The lady in the fur coat is haughty and disdainful; the young farmer is dazzled by her beauty and her presence. Both are icily polite.

It is difficult to maintain this pose, however, in a draughty waiting-room on a deserted station, and Greta begins to act a part. The more she acts, the more lies she tells, and the more young Tom is fascinated. He, however, is not such a fool as he appears to be, and during the course of the story his frank candour breaks down the barrier of untruth with which the lady in the fur coat has tried to cloud the situation. Gradually Greta finds herself being shocked into a reciprocal candour, and the story progresses to a reasonable end.

Mr. Frank Tilsley maintains the progress of his story without offending against the probabilities, and makes of it a very interesting and entertaining novel.

Finally, there is a spy-thriller from Mr. Bernard Newman, who can always be relied upon to give us good value for our money.

DEATH TO THE FIFTH COLUMN (Gollancz. 8s.) introduces once more our old friend Papa Pontivy, who, it is perhaps unnecessary to remind you, is still chief of the French Counter-Espionage Service.

"My dear Newman, you have been reading one of your own books," said Papa Pontivy. "Or, worse still, you have been to the pictures." The occasion is the theft of a uniform from a British officer in Paris. The time is early in 1940.

Newman and Pontivy were up to all sorts of hair-raising escapades in Germany, and whether they succeed or fail can be measured by the fact that they escaped through the evacuation of Dunkirk. There is not much that Mr. Newman does not know about German cunning, German stupidity, and Nazi treachery. His story rattles along as briskly as ever, and whether it is incredible or not, it is certainly exciting, amusing in parts, and has a substratum of seriousness.

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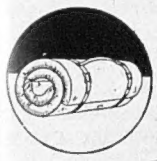

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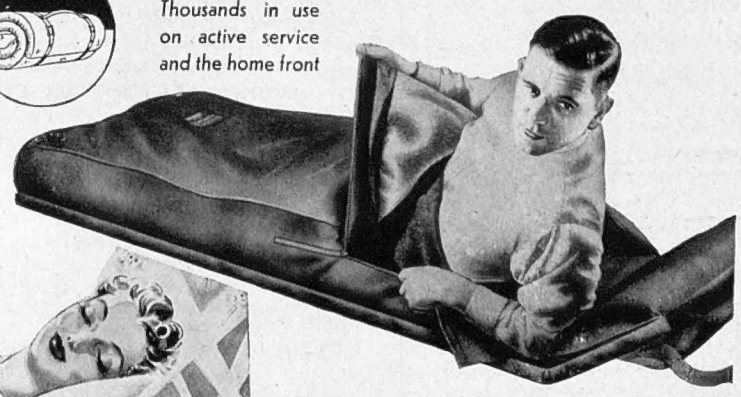

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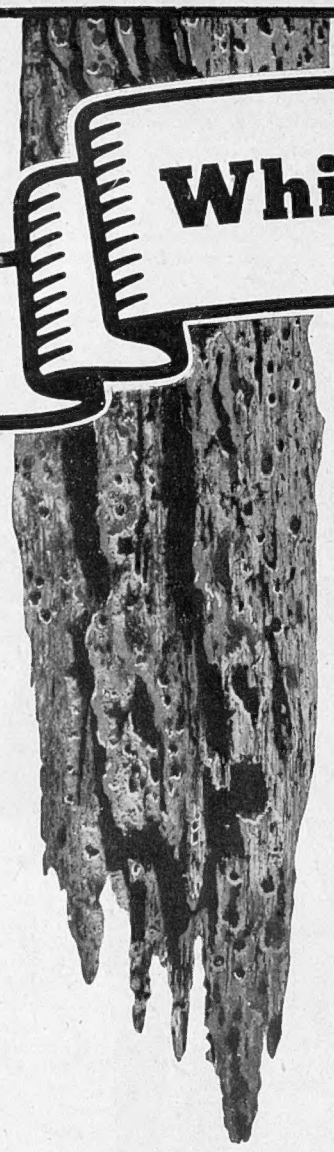

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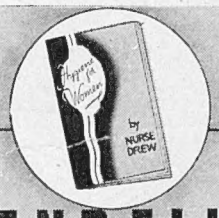

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In Quest of Good Hotels

By ASHLEY COURTENAY

FOR the first two months of this year I have been quartered, except for occasional excursions, at Dulverton, which lies at the foot of Exmoor, in the County of Somerset, and on the border of North Devon. Looking back over this period, certain definite impressions have taken up their residence in my storehouse of memory. In the first place, I cannot recall any other district in Britain where there is so much colour in the countryside during winter. As we drove back from Minehead one day, we commented on the changing tones of the beech hedges and the bracken. Sometimes russet, often burnt orange—always a ruddy hue, they compete for appreciation with the evergreens, olive, sage, and often a blackish-bluey-green.

Then, too, I have learnt that it is only in winter one can really feast on one of Nature's finest gifts—the trees around us. Massive oaks glistening in the rain; graceful limes, with shafts of sunlight piercing their contour. Chestnuts, elms and beech—how good they have been to look upon.

And thirdly, I have learnt to travel more leisurely. My finds are fewer, but the better for it. A twenty-mile run to view one hotel is now an expedition. To visit two or more is to travel abroad.

A good centre for pleasant perambulations is Dulverton. Let us pass on, then, to two of my most recent "finds."

The two most feudal-like towns in England are, to my mind, Arundel, in Sussex, and Dunster, in Somerset. In both cases the castle dominates over all, both are close to the sea and are worthy objectives for sight-seeing. But whilst a part of Arundel Castle is on view at stated times, Dunster Castle is a closed book, though the visitor to Dunster has ample compensation in the picturesque Market Cross, the Dutch-like houses, the old church, and many other fragments of history which only the keen eye of the antiquarian will detect.

For myself, I never tire of Dunster, for there is always some fresh discovery to unearth, and the Horse and Crook hotel is my latest and one of my best. The word hotel seems to be rather a misnomer, for it is difficult to reconcile a home, as it is, with the word hotel. An inn would have been much nearer the mark, for the Horse and Crook was once an inn and the old sign, recently found, once more decorates its weathered exterior. But an inn definitely suggests beer and skittles, and whilst I thought I could still detect that aroma which is indicative of pint pots and pipes, the Horse and Crook is no longer licensed, and the old skittle-alley now forms a decorative garden-path which leads to a further garden behind the old monastery wall.

No, the Horse and Crook is not an hotel nor an inn, except in terms of the dictionary definition, which is "a house for the lodging and entertainment of strangers." When it ceased to be an inn I have not yet discovered, and it is only in the last year or so that it has once more opened its doors for those who seek peaceful surroundings and the comfort of a home.

The house is one of those rare finds that prompt one to ask how the owners acquired such a gem. It is the old story of living on the spot for a number of years and being in a position to step in as soon as someone else stepped out.

It is one of those one-step-down two-steps-up type of house, with low beams to catch the unwary. On the right as one goes in is a large, comfortable sitting-room, with a fireplace dating back to 1551. On the left-hand side is what was the bar, now a bed-sitting room, and then around a widening corner one comes to the dining-room, which is the spit of a large ship's cabin, with converted cabin lanterns over the fireplace. Upstairs there are six or seven bedrooms, and although one did not expect to find H. and C., there were electricity, gas, and even gas-fires.

There is only one snag in my new find—other people have found it long before me. The Horse and Crook is mostly full, winter and summer, in peace and in wartime, so if you want to go there at any time it looks as if you will have to do as Mr. and Mrs. W. Hopwood did—await your turn to step in when someone else steps out.

Here 's Discovery No. 2. Whenever you come across a retired sailor running an hotel, it is pretty certain you will find spotless cleanliness, thoroughness and a certain steadfastness of purpose, and when I went to visit the other day the Clevelands Hotel at Northam, North Devon, I sensed a smack of the sea.

It was the old story I have heard so many times recounted of a man who had retired, travelled for a time extensively, seen the best and worst of hotel life, and then a small voice saying within, "Why not run an hotel yourself?"

Once bitten with the germ, Captain S. Bayes-Davy was determined to find some place in England which could be counted on as safer than most, and being accustomed to the use of square and compasses, he worked out that the safest place was a small triangle embracing Bideford, in North Devon. Cleveland sounded just the place he wanted, and once he discovered it to be within his triangle, it was not long before he found himself on the quarter-deck of his new craft.

It is hardly a year since Captain S. Bayes-Davy took over, but he has done much to improve his "ship." We started in the kitchen, "most important room in the house," he said, and I must admit the galleys of the *Queen Mary* could not have shone more. Upstairs we wandered down corridors gleaming in their coats of white paint. "Staff can't skimp their cleaning if there 's white paint," he rapped out. "Ay, ay, sir," I nearly replied.

Knowing the staff problems of wartime, I asked him whether he had difficulties in this respect. "Whenever I am short," he said, "I give a hand myself. I am always up at 6.30 a.m. Everything is always shipshape at breakfast-time; orders given for the day by 10. After that there is time to stroll round the grounds."

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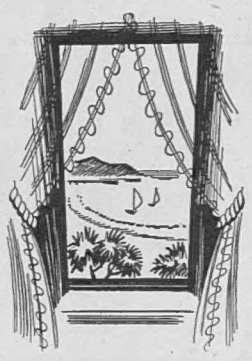

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Here are some of the contents of the MARCH issue:

"A MATTER OF OBSERVATION": By Richard Keverne
"BUNKERS": By W. E. Johns
"TWO AND A DOG": By R. Jackson
"ANNE FURBISHES UP HER BRAIN": By Barbara Cartland
"THE BLACK PRINCE AND THE FAIR MAID OF KENT": By F. Matania, R.I.
"THE LAND OF THE ETHIOPIAN": By Harold J. Shepstone
BRITISH HISTORY IN STONE—3: Sir Christopher Wren
BOOKS: Reviewed by Noel Thompson

The menfolk can be sure of finding well-informed articles of topical interest . . . "Commodore of Convoys" is a typical example in the March issue

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